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IMPACTS TO CLARK COUNTY NON- PUBLIC SAFETY GOVERNMENTAL AGENCIES RESULTING FROM THE YUCCA MOUNTAIN REPOSITORY

Prepared for the
Clark County Department of Comprehensive Planning
Nuclear Waste Division



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EXECUTIVE SUMMARY

This report is part of a series of reports that have been compiled by Urban Environmental Research (UER) for Clark County's Department of Comprehensive Division of Nuclear Waste (NWD). These reports are part of the NWD's ongoing efforts to identify impacts that are likely to result if the U.S. Department of Energy (DOE) proceeds with its plans to construct a high-level radioactive waste (HLW) repository at Yucca Mountain and its related shipment campaign. This study provides a first estimation of the range and magnitude of potential impacts to Clark County non-public safety governmental agencies as a result of the DOE's proposal and compliments an earlier study of potential impacts to the public safety agencies within Clark County and its incorporated jurisdictions.

This study does not attempt to estimate the total costs to the Clark County government from the Department of Energy's shipping of HLW, but only the incremental or additional costs to governmental entities that would be directly attributable to the siting of the repository at Yucca Mountain and the subsequent shipping campaign. This fiscal impact study of non-public safety agencies uses the same case study approach that was used for Clark County's public safety agencies and is similar to the methodology used by the State of Nevada over the last decade to identify impacts to governmental agencies. As part of this case study approach, County agency personnel are presented with three scenarios each describing a "future" shipping campaign, and asked to describe how the events would influence their agency. County personnel then provided a first estimation of the additional resources, training, personnel, equipment, and capital outlays that would be required by their agency to carry out their responsibilities under each of the three scenarios.

The scenarios were rooted in the DOE's Draft Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High Level Nuclear Radioactive Waste at Yucca Mountain, Nye County, Nevada (DEIS 1999). They include one "benign" scenario in which shipping occurs as planned and without incident; a second scenario that described an accident that did not result in any release of radioactive materials and a third scenario that contained a serious accident and a release of radioactive materials resulting in a fire and radioactive plume. The accidents were located at the Sahara exit of the Western Beltway three years after shipping may commence. This route is identified in the DEIS as a potential route for shipping the waste. Each of the scenarios contained some estimate of property value impacts based on property value diminution studies conducted by UER for the State in the summer of 2000 that used similar scenarios and interviewed appraisers and lenders in the Valley (UER 2001).

The results of the study indicate major negative impacts on many of Clark County governmental agencies. The potential vulnerabilities to these agencies are described in the report as well as a first estimation of the likely fiscal impacts to these agencies. Because of the length of time between now and the when shipments may actually begin, the ambiguities surrounding the actual shipment routes, and the modal mix, the results are very tentative.

The potential fiscal impacts to Clark County non-public safety governmental agencies in order to prepare for the commencement of the HLW shipments to Yucca Mountain (adjusted to the year 2007) are likely to reach almost **\$40 million**. These include almost **\$6.3 million** in additional **personnel** costs; almost **\$20 million** in expenditures for radiation health and safety, as well as, risk communication **training**, changes to various County **planning documents**, and **public outreach**; and approximately **\$13 million** in **equipment** and **capital expenditures**.

Over the proposed 24-year duration of the shipment campaign, the cost for personnel would reach **\$229 million**, while the cost for training, plan development and public outreach would reach almost **\$123 million**. Other capital and equipment costs were only estimated through the commencement of the proposed program in 2007 since projecting the diverse nature of these costs were beyond the scope of this report.

In addition, these estimates are quite conservative since all but three agencies interviewed indicated that they would likely experience adverse fiscal impacts on their personnel costs in order to **prepare** for the Yucca Mountain Project and its related HLW shipment campaign but only eight agencies were able to quantify the potential fiscal impacts to their agencies. Many of the agencies identified additional studies that will need to be conducted to forecast the impacts to their agencies.

If a **Scenario 2** type of HLW incident were to occur, many of the agencies indicated that they would experience additional impacts, however, only three of the agencies felt that they could quantify these impacts based on the available information. According to the estimates provided by these three agencies, a **Scenario 2** event would result in another **\$1 million** in expenditures for Clark County, primarily for **overtime** and some additional **training**. As additional studies are done, the remaining agencies should be better able to quantify the numerous vulnerabilities that they identified.

The potential magnitude of a **Scenario 3** HLW accident was the most troubling to everyone who was interviewed. The fiscal impacts within just a one-year period were estimated by twelve non-public safety County agencies at almost **\$122 million**. These include an additional **\$6 million** in **personnel costs**; over **\$645 thousand** in additional **training** costs; almost **\$47 million** in equipment and capital costs; as well as, a decline in **revenues** of **\$7 million** and

additional **medical expenditures** of **\$61.5 million**. It should be noted that many of these costs would likely last for well over the year that has been estimated in this report.

Further, it is important to note that these first cut estimates are only those additional costs associated with the impacts of the Yucca Mountain Project and are in addition to the almost \$275.million in estimated impacts to Clark County's public safety agencies. These estimates also do not include any additional costs for upgrading either the Western and Northern Beltway or the I-15 corridor.

1.0 INTRODUCTION

In the summer of 2001, the Clark County Commission approved a contract with Urban Environmental Research LLC through the Clark County Nuclear Waste Division. The contract was to continue a series of studies detailing the potential impacts to Clark County governmental agencies and residents as a result of the DOE's proposal to construct a HLW repository at Yucca Mountain and its related shipment campaign. This study of Clark County's non-public safety governmental agencies is the first effort to examine the issues and impacts on these agencies from the siting of the HLW repository. As such, while some agencies were readily able to estimate the potential fiscal costs to their agency that would be directly attributable to the shipping of HLW through the County to the repository, others were not. For these agencies, we have identified the types of impacts that they believe may be experienced if the DOE proceeds and we briefly discuss the additional work that will be necessary to fully quantify the magnitude of impacts that may be experienced by Clark County governmental agencies.

This study is one of several examining the fiscal impacts to governmental agencies in the Las Vegas Valley as a result of the potential siting and shipping of HLW to a repository that may be sited at Yucca Mountain, Nevada. This investigation, however, focuses specifically on the non-public safety agencies in Clark County.

This study, as well as an earlier study of Clark County public safety agencies, was designed to be similar to fiscal studies that have been performed on Nevada's State agencies by the principals of UER from 1987 through 1997. The state fiscal studies were performed at specified intervals on the same state agencies over time as increasingly more information about the nature of the repository and the HLW shipping campaign became known. These state fiscal impact studies at first discovered low levels of awareness among state personnel concerning the

HLW repository, the siting process, and how it might affect their agency. Over time, however, not only did state personnel exhibit increasing knowledge about the siting, but also about the potential impacts on their governmental unit and agency.

This increased knowledge and familiarity was not only a function of greater information available about the repository, but it was also result of the agencies' personnel beginning to realize that potentially adverse fiscal impacts might result from such a siting as they reflected about the details of the repository and the shipping of the HLW through the state. Just as in these earlier studies, scenarios have been used to provide all Clark County agency directors and staff with similar conditions (scenarios) on which to base their assessments of fiscal impacts and projected needs within their agencies.

Because this is the first such study among the non-public safety agencies in Clark County, there was considerable variance among the participants as to their knowledge and familiarity with the details and potential impacts from a HLW repository and concomitant shipping campaign. Despite the varying knowledge about the Yucca Mountain project, all of the governmental personnel interviewed provided thoughtful and insightful comments about how the repository and the related shipment campaign could affect their agencies under the three scenarios that were presented. In fact, although some agencies were not able to provide a first estimation of costs, they did provide an extensive discussion of potential vulnerabilities and they identified the types of studies that will be needed so that they are better able to estimate the potential fiscal impacts to their agencies.

Before discussing the methodology that was employed (next section of the report), it is important to first take note of a primary aspect of the study. What is being studied and estimated is not the total fiscal cost or budget of any Clark County agency, but rather the incremental or

additional cost to these agencies that is directly attributable to the repository's siting at Yucca Mountain and the related HLW shipping campaign. Hence, these cost estimates for Clark County's agencies are the fiscal impacts that will be directly attributable to the siting. They would not be incurred by the County if the repository and shipping campaign do not occur.

Based on three different scenarios of shipping HLW as a result of the siting of the Yucca Mountain Project, this study estimates the costs of additional services, or increased capacity (in the form of personnel; training, plan development, and public outreach; equipment and capital spending;), as well as, other vulnerabilities that may be experienced by Clark County's governmental entities. Appendix A provides a detailed discussion of these scenarios. Note that each contains a different set of conditions concerning the future of HLW transport should the DOE move forward with its plans contained in its DEIS for the repository. It is to the methodology of the study and the construction of the scenarios that the report now turns.

1.1 Purpose and Methodological Approaches to Governmental Fiscal Impact Analysis

As described in detail in UER's earlier study of Clark County's public safety agencies, governmental fiscal impact analysis has a long history in both the planning and the intergovernmental finance fields (UER 2001). As noted, "fiscal impact analysis is used by municipalities in forecasting the public costs resulting from increased demands caused by growth. In a similar vein, such impact analysis can, and is, applied to estimating the public costs from a particular or group of private projects of significant size as cities attempt to determine fiscal impacts so that they may levy concomitant impact fees" (UER 2001).

Two primary approaches are used to determine the fiscal costs to government resulting from major projects: the average cost approach and the marginal cost approach. The 'average' costing per unit technique is often used in large siting impact studies. This approach does not

“consider existing excess or deficient capacity that might exist for particular services” (UER 2001). Alternately, the marginal cost approach accounts for “existing supply and demand relationships by determining existing excess or deficient capacity, projecting the new demand, and determining what additional (if any) capacity at what cost is necessary” (UER 2001). This study employs the marginal cost approach utilizing a case study technique. For a more detailed discussion of the two approaches and the various techniques that are appropriate within these approaches the reader is referred to the earlier public safety study, *Impacts to Clark County Public Safety Agencies Resulting From the Yucca Mountain Project* (UER 2001).

1.2 The Case Study Technique for Projecting Governmental Fiscal Costs

As described in the earlier Clark County public safety study, *Impacts to Clark County Public Safety Agencies Resulting from the Yucca Mountain Project*, the case study method “employs intensive site-specific investigations to determine categories of excess or slack in public service delivery capacity” (UER 2001). Excess capacity exists when there is capacity beyond that needed to accommodate existing service need or demand, and deficient capacity exists when the current capacity is below what is needed or near the limits of what can be provided. These deficient or excess service capacities are subtracted from or added to the projected estimates of operating and capital demands. If excess existing capacity exists, it can potentially mitigate the effects of a project if the community, already possesses the capacity to meet the service needs and demands that result from the project. However, if a deficient capacity already exists within the community for a particular service, then the additional demands resulting from the project may have a far greater impact than would be estimated using an average cost technique.

As described in the earlier Clark County public safety fiscal impact study, several assumptions underlie the use of the case study cost projection method (UER 2001). These assumptions are:

1. Communities differ in the degree to which they exhibit excess or deficient capacity.
2. Marginal changes in providing various municipal and county services are a reaction to service excesses or deficiencies.
3. Local standards (not national ones) in large part represent the criteria by which local excess and deficient service levels are measured.
4. Local department heads and personnel are the individuals that are best suited and most knowledgeable about the service capacity of their agencies, and about the future service needs associated with new projects or mandates.

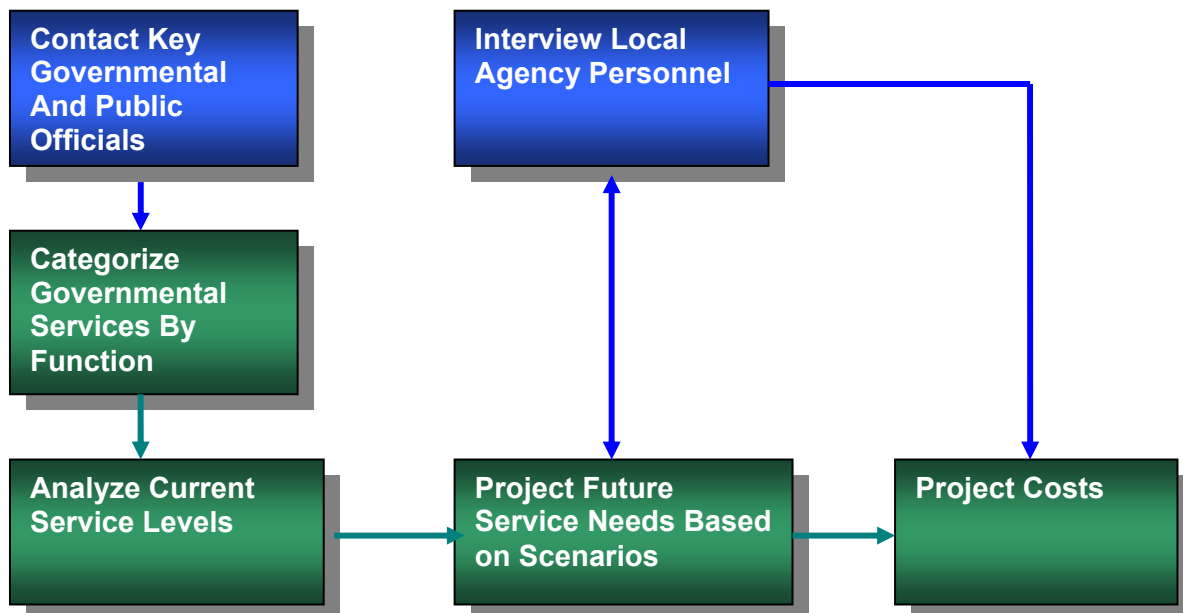
As noted above, the case study methodology for estimating fiscal impacts has been employed in this study for projecting fiscal costs to Clark County non-public safety agencies resulting from the DOE's proposed actions. The steps taken to implement this case study methodology is detailed below:

1. Contact and interview these key governmental and public officials;
2. Categorize current local governmental services by function and the administrative agencies responsible for each (particular attention to each county governmental organization is required at this stage);
3. Determine current levels of service provision, as well as existing service excess or deficiency for various public services;
4. Project future service needs and demands using existing mandates and agency responsibilities, as well as through the interviews conducted;

5. Interview local agency personnel to determine how their departments would be impacted under each of the **scenarios** characterizing the nature of the future repository and transportation of waste, and how these scenarios will either result in the necessity of expanded capacities (or not) and the projected response of the agency;
6. Estimate fiscal costs that will be incurred by each effected agency as a result of their projected response to the scenarios (needed training, equipment, operational expenditures, and capital outlays).
7. Evaluate the additional studies that are necessary to quantify more fully the range and magnitude of impacts that may be experienced by these agencies.

These steps in the employed methodology can be collapsed, and be viewed diagrammatically as the basic approach to projecting fiscal impacts from the proposed repository for Clark County agencies (Figure 1).

Figure 1 - Methodological Approach



During Step 1, UER in consultation and with support of the NWD contacted 21 agencies within Clark County between August 2001 and October 2001. The agencies contacted and those interviewed are listed in Table 1.

TABLE 1 - CLARK COUNTY NON-PUBLIC SAFETY AGENCIES INTERVIEWED	
Administrative Services	Jim Spinello – Franchise Services Manager Jennifer Lances – Neighborhood Services Manager Joe Boteilho – Animal Control Manager Jim Foreman – Manager Public Response Robert Andrews – Emergency Management Manager
Assessor	Zane Burgeson – Deputy Assessor
Aviation	Randall Walker – Director Charles Geisler – Safety and Environmental Manager William Klien – Assistant Director, Landside Operations
Building	Robert Weber - Director
Business License	Michael Harwell – Assist. Manager Franchises and Utilities
County Clerk	Shirley Parraguirre – County Clerk
Comprehensive Planning	Barbara Ginoulis Shane Ammerman Mario Bermudez John Baggs Chuck Pulsipher Rod Allison John Wardlaw John Schlegel Carolyn Boyle Jenney Sartin Irene Navis Harry Kelman Rick Hasse Marta Golding Brown Alan Pinkerton Phil Rosenquist Cindy Truelove
County Manager	Thom Reilly - Director Rick Holmes – Assistant Director Mindy Unger-Wadkins-Public Communications
District Attorney	Elizabeth Vibert - Deputy DA Civil Division Stephanie Barker - Deputy DA Civil Division
General Services	Ted Olivas – Purchasing and Contracts Manager James Barber – Automotive Division Manager Brian Rinehart – Manager of Central Services
Health District	Donald Kwalick – Chief Health Officer Clare Schmutz – Director Environmental Health Services Karl Munninger – Director Administrative Services
Finance	George Stevens - Director
Parks and Recreation	Patricia Marchese – Assistant Director Jeff Harris – Park Planning Manager
Public Works	Martin Manning- Director
Recorder	Judith Vandever – Recorder Steve Novak – Chief Deputy Recorder

TABLE 1 - CLARK COUNTY NON-PUBLIC SAFETY AGENCIES INTERVIEWED	
Regional Flood Control	Kevin Eubanks, P.E. – Assistant General Manager
Regional Transportation Commission	Jacob Snow – General Manager Fred Ohene – Assistant General Manager
Sanitation District	Kevin Smedley – Principal Planner
School District	Walt Ruffles – Deputy Superintendent D.L. Dickens – Demographics, Zoning, and Realty department Patrick Herron – Assistant Superintendent Richard Ennes – Business and Financial Services Dan Reyes – CCSD Police Department
Social Services	Verlia Davis Hoggard – Director Nancy McLane – Assistant Director Bobby Gordon – Social Services Manager Mary Ann Salmon – Social Services Manager
Treasurer	Laura Fitzpatrick – Treasurer Rick Phillips – Chief Investment Officer Manny Hernandez - - Administrative Services Manager

1.3 The Scenarios

All interviews were based on the same three scenarios of the future transportation of nuclear waste through the valley, which was used in the study of fiscal impacts to Clark County’s public safety agencies. These three scenarios contained descriptions of the shipping campaign described in the Department of Energy’s (DOE) Draft Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High Level Nuclear Radioactive Waste at Yucca Mountain, Nye County, Nevada (DEIS) (U.S. DOE’s DEIS 1999). The first two scenarios flow directly out of this section of the DEIS. It describes: a) a “benign” future shipping campaign beginning in 2007 with no events occurring over the twenty four years of shipments, and b) a future containing an incident described by the DEIS in which a cask containing nuclear waste breaks free of the trailer, remains intact and releases no radiation. The final scenario was developed by the state of Nevada’s transportation expert on shipping high-level nuclear waste using information in the DEIS (DEIS 1999 {Transportation Accident Scenarios, Section J.4.2. pp. J-52 – 72}). This third scenario contains a serious accident on the

Western Beltway at the Sahara Drive exit, in which radioactive waste materials are dispersed over a wide area.

In addition, each scenario contained a description of the projected effects of that shipping scenario on property values within one mile, and between one to three miles of the transportation corridor (see Appendix A for the complete scenarios). These projected property value impacts for residential, commercial and industrial property were based on the earlier study completed in the Las Vegas Valley that estimated property value diminution effects from waste shipments (UER 2001). This property value research utilized the same three scenarios (without the projected property value impact projections). It was based on interviews with experienced real estate appraisers and bankers in Clark County, as well as a separate survey of Clark County residents.

This research design not only permits cross walks between the earlier property value study, but also provides the agency personnel being interviewed with considerable detail about the number and nature of the projected shipments of waste. Each scenario also contained the number of projected shipments and the potential routes along which this waste would be shipped. The scenarios are summarized in Table 2.

TABLE 2 - SUMMARY OF SCENARIOS	
Scenarios	Description
1	No accident of any kind has occurred. However, anti-nuclear environmental groups and property owners along the route (who claim that their property values will decrease) have generated considerable publicity.
2	Shipments of nuclear waste to the Yucca Mountain repository site have progressed for several years without incident. Three days after New Year's Day 2010, the driver of a truck transporting nuclear waste loses control of the vehicle and runs into the median of Interstate 15. The cask containing the nuclear waste breaks away from the trailer and skids 50 yards along the median of I-15 in North Las Vegas. The cask remains intact and no radiation is released, but the national media covers the event heavily.
3*	An accident involving a truck carrying spent nuclear fuel and a gasoline tanker on I-15 near the Las Vegas Strip. The accident triggers a chain reaction collision. Twenty-seven civilians, four sheriff's deputies, and seven firefighters are hospitalized after exposure

TABLE 2 - SUMMARY OF SCENARIOS	
Scenarios	Description
	to radiation at the site of accident. Another 1,000 or more persons are exposed to radiation from the fire's radioactive plume. Experts indicate that 5 to 200 latent cancer fatalities may result from the accident. The affected highway and several access ramps are closed for four days. The two drivers of the spent fuel hauler and the gasoline tanker, and one driver-escort, died from head injuries and burns. Six months later, the cleanup effort is still under way, and thousands of lawsuits have been filed. Preliminary reports estimate cleanup costs and economic losses in excess of \$1 billion.

*Source: State of Nevada, Nuclear Waste Project Office.

As indicated earlier, the state's studies projecting fiscal impacts to the state agencies became increasingly detailed as agency personnel became more familiar with the details of the proposed repository project and shipping plans (Mountain West Research June 1989), (Mushkatel, Alvin June 1988), (Planning Information Corporation and Alvin Mushkatel, 1998). By providing the scenarios that were based on DOE's own DEIS a series of credible futures could be constructed with some additional detail to provide agency personnel with a more complete understanding of the environmental conditions that will likely result from the construction of the Yucca Mountain Project and its related HLW shipment campaign. This additional detail serves to aid in familiarizing personnel with the project but also insures comparability among the agencies. By using the scenarios, agency personnel from different agencies are responding to the same description of the transportation shipping campaign.

2.0 NON-PUBLIC SAFETY AGENCY IMPACTS

2.1 Administrative Services

2.1.1 Administrative Services Background

The mission of the Department of Administrative Services is "to serve the people of Clark County with progressive and responsible management and community services through collaborative ventures that support the mission and goals of the Board of County Commissioners, the County Manager, and County Departments." (Administrative Services Strategic Plan,

FY2001). To achieve this mission, the Department of Administrative Services provides a variety of services in support of the County Manager and the Board of County Commissioners. These services include:

- Providing public policy and organizational consulting assistance to the County Manager and Board of County Commissioners;
- Furnishing administrative support to the County Manager; Board, and other departments;
- Coordinating franchise activities;
- Assigning contacts to town advisory boards and councils;
- Coordinating and implementing the County's strategic planning efforts; and
- Coordinating the legislative initiatives of the County.

The Department of Administrative Services is organized into six divisions as illustrated in Figure 2. The responsibilities of each of these divisions include:

The **Center for Strategic Management (CSM)** coordinates and provides “leadership and organizational development opportunities for Clark County employees” (Administrative Services 2001). The CSM focuses their services to County administrators and departments on “three areas: Managing for Results, Leadership Development, and Organizational Support”(Administrative Services 2001).

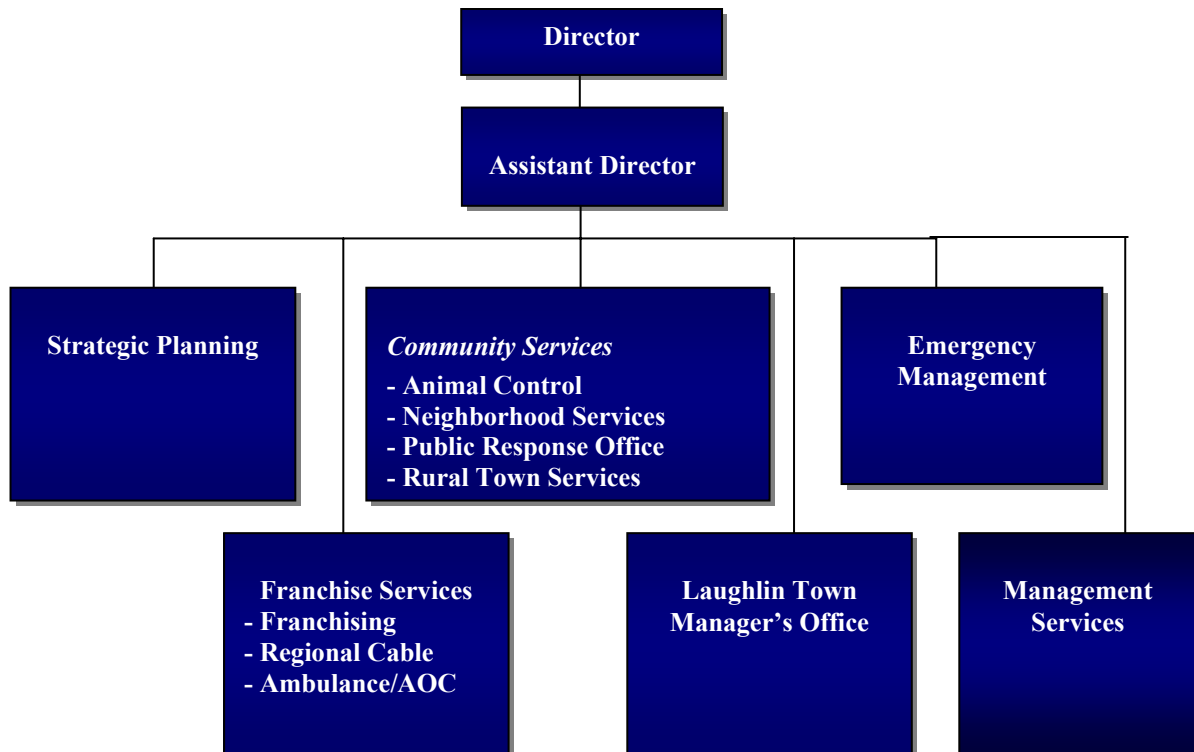
The **Division of Community Services** manages four program areas: Animal Control, Neighborhood Services, the Public Response Office, and Rural Towns Services. These programs are designed to improve the quality of life in Clark County neighborhoods (Administrative Services 2001). Animal Control is in charge of controlling the pet population in unincorporated Clark County, including acting as the rabies control authority. In addition, Animal Control manages compliance with Clark County’s rabies vaccination requirements and oversees any

quarantine of animals that may be required. Animal Control also provides “education, services, and enforcement in animal-related areas, such as pet care, adoption, sterilization, and identification” (Administrative Services 2001).

Neighborhood Services has two primary responsibilities. First, it is charged with ensuring an active dialogue between Clark County residents and government representatives, and second, they are responsible for facilitating public involvement in programs and activities to enhance and preserve neighborhoods. Similarly, the Rural Town Services is tasked with providing liaison services for several rural communities. The Program Response Office (PRO) supports neighborhood preservation and safety through the enforcement of Clark County land use codes and other programs such as removing unwanted graffiti. The PRO also manages the Solid Waste Environmental Protection Team (SWEPT) that investigates illegal dumping and storage of junk vehicles and organizes community cleanups.

The **Office of Emergency Management** (OEM) is the point of coordination for all of Clark County’s public safety programs that include emergency planning, preparation activities during emergencies, and coordination of recovery programs following emergencies. Because of the extensive range of impacts that will be experienced by the OEM, this agency was investigated in an earlier study that documented the potential impacts to all public safety agencies within Clark County. The findings from this earlier investigation can be found in the *Integrated Public Safety Impacts Resulting from the Yucca Mountain Project* (UER 2001).

Figure 2 - Administrative Services Organizational Chart



Source: Administrative Services

Franchise Services administers all franchises with public utility, telecommunications, cable TV, ambulance, monorail, solid waste, and bus stop shelter firms operating in the unincorporated areas of Clark County (Administrative Services 2001). While the **Laughlin Town Manager's Office** administers and coordinates, all issues related to Clark County services in Laughlin, Nevada, **Management Services** provides consulting support to the Board of County Commissioners, the County Manager, and Department Directors.

The estimated expenditures for the Department of Administrative Services for the fiscal year ending June 30, 2001 were \$7,665,577 (Clark County Amended Final Budget FY 2001 – 2002). Almost \$5 million of these costs were for salaries and benefits, with another \$2.8 million for services and supplies.

2.1.2 Administrative Services Vulnerabilities and Impacts

In the event that DOE proceeds with its plans to ship HLW through Clark County, there will need to be an extensive public outreach program administered by the County. Because public information programs are decentralized within each of the County agencies, it is expected that the major public outreach activities will be coordinated by the Department of Comprehensive Planning's Nuclear Waste Division (NWD) in coordination with the Director of Public Communications, the Office of Emergency Management and Neighborhood Services. Thus, the additional information distribution costs included below represent only those costs associated with the Neighborhood Services provision of information to the Town Advisory Boards. Even so, because of the consistent public opposition to the Yucca Mountain project among Clark County citizens, it is expected that the demand for information will increase and additional coordination with the Town Advisory Boards will be required even in the event that there are no incidents resulting from the shipment campaign. Based on the Department's experience with other controversial issues, Neighborhood Services indicated that their costs will increase in excess of \$184 thousand per year, just to keep the Town Advisory Boards and Citizen Advisory Committees informed about the shipment campaign (Table 3).

TABLE 3 - ADMINISTRATIVE SERVICES: PREPAREDNESS NEEDS, VULNERABILITIES, AND IMPACTS			
Administrative Services	Cost		Vulnerability/Impact
Information Distribution	\$184,481		Information to public on nuclear waste program \$150,000/yr
TOTAL*		\$184,481	

* Personnel, information development/distribution, and plan development costs are adjusted using a 3% inflation factor through 2007.

In the event of a significant accident, such as described in Scenario 3, Neighborhood Services would require six additional personnel to assist with information dissemination and the costs for fact sheets and other materials would grow to almost \$370 thousand (Table 4). In

addition, the Center for Strategic Management, which provides internal analytical consulting to the Board of Commissioners, the County Manager, and County Departments, would also likely need to be expanded by four analysts. Salary and benefits for these analysts would be approximately \$290 thousand per year. Total additional costs for the Department of Administrative Services in the event of a Scenario 3 accident could reach almost \$945 thousand dollars (Table 4).

TABLE 4 - ADMINISTRATIVE SERVICES: SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS			
Administrative Services ¹	Cost		Vulnerability/Impact - Scenario 3
Personnel	\$287,790		Neighborhood Services - will require 6 additional personnel for information dissemination and meetings (one per district).
Personnel	\$287,790		Center for Strategic Management may require 4 additional analysts.
Information Distribution	\$368,962		Information to public on nuclear waste program \$300,000/yr.
	N/A		Under accident conditions, will have to increase the animal control budget by 10 fold.
TOTAL*		\$944,542	

* Personnel, information development/distribution, and plan development costs are adjusted using a 3% inflation factor through 2007.

¹ **NOTE:** These costs are in addition to the preparedness costs detailed in Table 3.

2.2 Assessor

2.2.1 Assessor's Office Background

The Assessor's Office is required by Nevada law to locate, appraise, and collect taxes on all Clark County personal property (Nevada Revised Statutes and the Department of Taxation regulations). In addition, the Assessor's Office tracks the "secured and unsecured tax rolls, authenticates and processes recorded conveyances for real property, and maintains the appraisal map system and provides information to the public" (Clark County Assessor's Office 2001-2002).

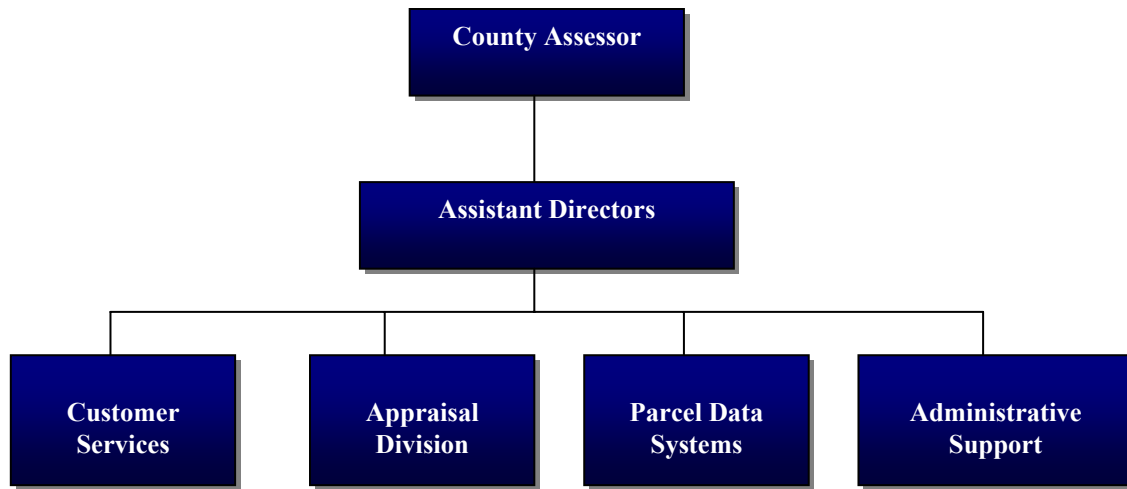
Currently, the Clark County Assessor's Office is responsible for valuing approximately 484,000 parcels of real property including land, homes, and commercial buildings with an estimated value of \$1,087,468,545. In addition, the Assessor values personal property of approximately 33,000 businesses, as well as, manufactured homes, aircraft, and any other taxable personal property (Table 5). By Nevada law, property is assessed at 35% of its current appraised value.

TABLE 5 - CLARK COUNTY ASSESSED REAL AND PERSONAL PROPERTY BY TYPE	
Number of Parcels	Type
11,805	Commercial Parcels
2,467	Industrial Parcels
71,138	Vacant Land Parcels
398,583	Residential Parcels
15,916	Totally Tax Exempt Parcels
34,078	Manufactured Homes
33,760	Businesses
56,288	Personal Tax Exemptions
763	Aircraft
483,993	Parcels in Clark County

Source: Clark County Assessor's Office Web site

In order to manage these responsibilities efficiently, the Assessor's Office is organized into four divisions: customer service; appraisal; parcel data systems; and administrative support (Figure 3). The estimated budget for FY 2001 for the Clark County Assessor's office is \$11,424,884 (Clark County Amended Final Budget FY 2001 – 2002). This is comprised primarily of salaries and employee benefits with the remaining \$1 million in expenditures by this office covering supplies and services.

Figure 3 - Assessor's Office Organizational Chart



Source: County Assessor's Office

2.2.2 Assessor's Office Vulnerabilities and Impacts

The Assessor's Office representatives that were interviewed identified three key impacts to their agency that are likely to result if the DOE proceeds with the Yucca Mountain project. First, they noted that additional staff will be necessary under each of the scenarios to respond to the increased queries about property value impacts, as well as, an increasing number of appeals that are likely from those residents whose homes are near the HLW shipment corridor. One of the representatives indicated that in the case of an HLW incident, the number of appeals would likely grow significantly. Further, if an incident resulted in the County lowering assessed values for properties along the HLW transportation corridor; those who resided just outside of the corridor would likely appeal their assessments. Thus, equity concerns would become an increasing challenge for the Assessor's Office if a HLW incident occurs.

Second, the Assessor's Office representatives interviewed indicated that if the DOE proceeds with the Yucca Mountain project, that just the announcement would have an adverse impact on property values. They noted that some residents would be unwilling to live along the

corridor even if they are assured by the DOE that the likelihood of an accident is minimal. If an incident with a HLW shipment occurs, the impact on property values will be even more significant, resulting in an increased number of appeals. In addition, more than one representative remarked that Clark County is dependent on continued growth to maintain a healthy economy. If DOE proceeds with the Yucca Mountain project, the growth that Clark County depends upon will be jeopardized, and in the case of any accident, growth will be reduced if not stalled (Table 6).

TABLE 6 - ASSESSOR: PREPAREDNESS NEEDS, VULNERABILITIES, AND IMPACTS	
Assessor	Vulnerability/Impact
Personnel	Additional staff will be necessary under all of the scenarios with an increasing adverse impact linked to the severity of any incident event. This would result in an increase in the number of appeals, even under Scenario 1. Under Scenario 2 and 3, the number of appeals would rise even higher, especially if adjustments are made close to the corridor. Equity issues will become an increasing challenge.
	The announcement alone that DOE is proceeding will have an adverse impact on land values. An accident would be devastating. Clark County is dependent on continued growth to fund and maintain a healthy economy.
	The pattern of where development will occur will likely shift as people are willing to pay a premium to be away from the corridor.

Finally, if as expected, residents and businesses choose not to locate in proximity to the HLW shipment corridor, then the pattern of future development will likely change in the Valley if the DOE proceeds with its program of shipping waste through Clark County. Current plans envision significant future growth along the Northern and Western Beltways. If these become the routes for HLW shipments then growth will likely shift away from these corridors as residents and businesses pay a premium to live and work in areas away from the corridor, or land use patterns with less value will result in planned developments along the Beltway.

2.3 Aviation

2.3.1 Aviation Background

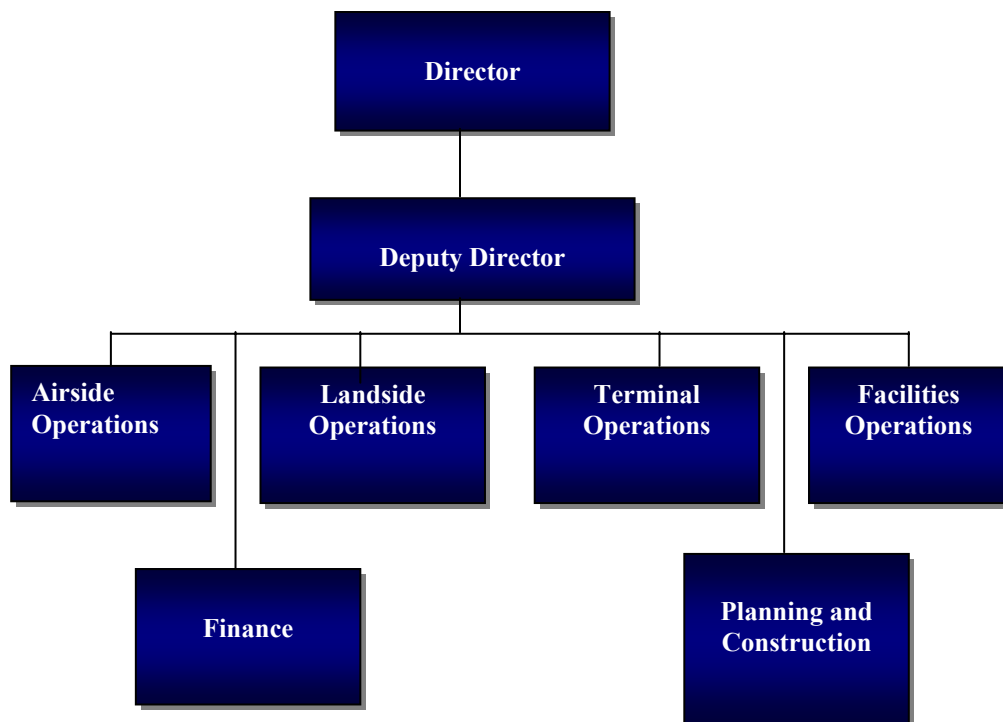
The Clark County Department of Aviation's VISION 2020 is an important document because it highlights the remarkable growth trends at McCarran Airport, identifies present conditions, and addresses future needs. It is a follow up to the 1978 20-year plan for aviation and takes aviation planning needs out to year 2020. The report notes that growth in aviation and airport activities has been substantial. In 1978, the airport served over 9 million annual passengers; in 1990, 19.1 million passengers; and in 2001, 36.8 million passengers. In 1990, the total number of visitors to the Las Vegas area was estimated to be 20,954,420 and today it is 35,849,691. Up to fifty percent of these visitors may be utilizing air transport. In 2000, on any one-day, the McCarran Airport experienced around 870 flights, 105,000 passengers, 600,000 pounds of cargo, and employed 10,000 persons.

Growth planning for aviation is dependent on hotel growth: for every 10,000-hotel rooms added to the Las Vegas area, 3.5 million passengers have typically been added. Airport planning is contingent on passenger level activity and size. Based on national trends, the current capacity of 55 million passengers per year will be reached by 2010. As a result, VISION 2020 calls for two new terminals, road access changes, and off-site airport development, at a cost of \$1.35 billion. In year 2000, total assets in the Department of Aviation was estimated to be \$2.25 billion with a total equity at the end of year 2000 of \$662, 885,390.

The Director's office includes the Deputy Director and the divisions of Human Resources, Marketing, Reliever Airports, Media Relations, and Public Agencies, which include Metro Fire (Figure 4). Six departments fall under the Director's office. These include: Airside Operations (Gate Management, Airfield Maintenance, the Control Center, Security and other

functions); Facility Maintenance (HVAC, Energy, Building Maintenance), Finance (Airline Concessions, Budget, Tenant Relations, Purchasing), Landside Operations (Transportation, Parking); Planning (Airport Planning, Air Quality, Safety, Construction); and Terminal Operations (Passenger Service, Custodial).

Figure 4 - Aviation's Organizational Chart



Source: Department of Aviation

2.3.2 Aviation Vulnerabilities and Impacts

To date, the airport has not planned for shipments of nuclear wastes and possible accidents. Interviews with aviation personnel indicated the potential for significant preparedness costs for Aviation under a Scenario 3 event. Depending on the extent, location, height and wind conditions related to a release of radioactive material from a transportation accident involving nuclear waste and fire, the accident may result in the closure of the airport and require the implementation of an evacuation plan for the airport. Evacuation plans involving nuclear waste

materials will require development and training exercises in addition to risk analysis. Current evacuation plans call for the use of available local public buses and school buses, which are unlikely to be available in the case of a nuclear waste transportation accident as depicted in Scenario 3. If HLW shipments go forward, a risk analysis and new evacuation plans will need to be developed. These costs are found in Table 7.

TABLE 7 - AVIATION: PREPAREDNESS NEEDS, VULNERABILITIES, AND IMPACTS			
Aviation	Cost		Vulnerability/Impact
Personnel	\$2,400,000		Aviation estimates that they would need 60 drivers, annual maintenance, and salaries of \$2.4 million.
Personnel	\$737,924		Control room may require 6 additional persons
Equipment	\$7,035,502		In order to prepare for a Scenario 3 event near the airport on I-15 will require early warning monitoring instruments (50 instruments @ \$100,000 per instrument.)
Equipment	\$2,814,201		Aviation estimates that they would need 40 busses at \$50,000 each for evacuation purposes.
Training	\$830,165		The 40-hour "Rad 1" training will be required for existing security/traffic control (300 persons).
Plan	\$61,494		Department will need additions to their emergency plan (\$50,000).
Plan	\$614,937		Depending on nature and location of accident and plume may result in closure of airport and require implementation of an evacuation plan. Current evacuation plans are dependent upon the availability of CAT buses and school district buses. In the case of a HLW shipment accident, it is unlikely that these vehicles would be available for use by the airport. Thus, if HLW shipments go forward a risk analysis and new evacuation plan will need to be developed.
TOTAL*, **		\$14,494,223	

* Personnel, training, information development/distribution, and plan development costs are adjusted using a 3% inflation factor through 2007.

** Equipment costs are adjusted using a 5% inflation factor through 2007.

In addition to costs for actual plans and exercises, the airport would require assurances of the availability of at least 40 buses, salaries for drivers, and maintenance. These would have to come either from purchases of new buses or from other institutional arrangements. The costs however for new buses alone were estimated at over \$2 million.

Annual maintenance and driver salaries would result in additional costs of over \$2 million per year in preparedness. Another large expense item identified by safety personnel in

Aviation was the need for remote early warning air monitoring instruments. The costs for preparedness including monitoring instruments, evacuation buses, training, and plans may well be over \$14 million. Some of these costs will be recurring yearly expenses.

TABLE 8 - AVIATION: SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS			
Aviation	Cost		Vulnerability/Impact- Scenario 3
Training	\$276,722		Under a Scenario 3 event, the 40-hour “Rad 1” training for an additional 100 persons will be required
TOTAL*, **		\$276,722	

* Training costs are adjusted using a 3% inflation factor through 2007.

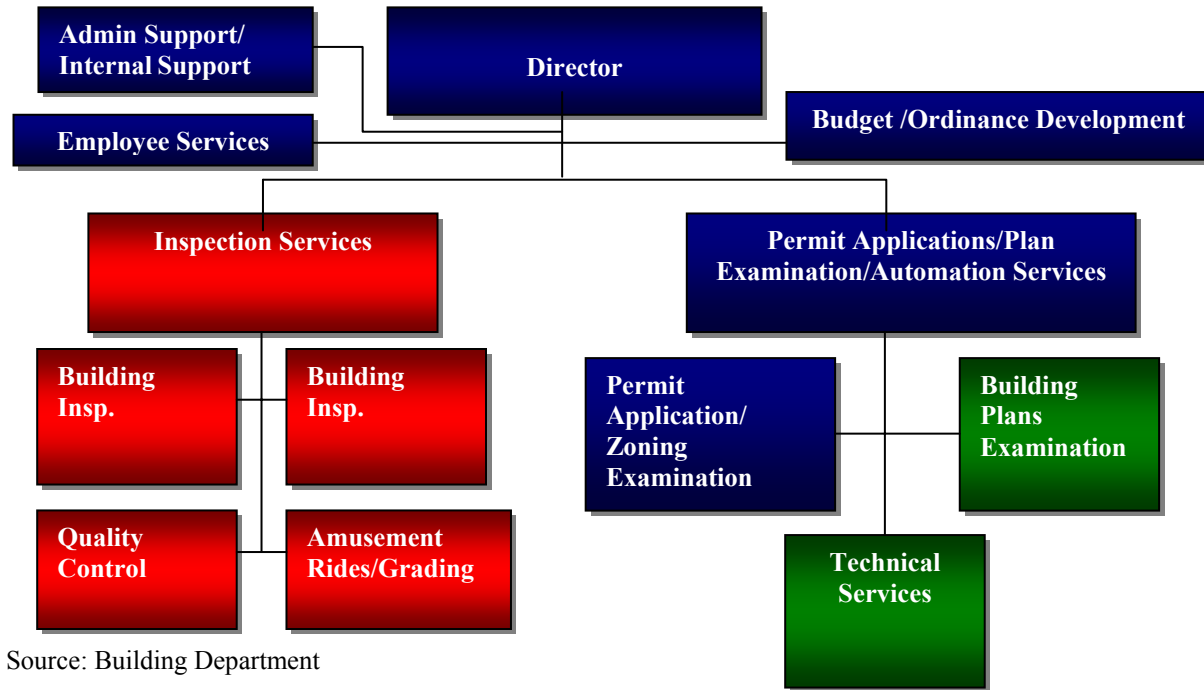
2.4 Building Department

2.4.1 Building Department Background

Based on Clark County’s Building Department Strategic Plan (Clark County Building Department, November 2000), the mission is to: “effectively provide customers with a professional level of service to ensure a safely built environment.” The Building Department reviews building construction plans to monitor compliance with building safety codes and standards. The Department also conducts on-site inspections of construction sites and maintains such records. Currently, the Department has 249 positions organized into the following divisions:

- Administration
- Permit Application
- Technical Services
- Building Plans Examination
- Inspections (Figure 5)

Figure 5 - Building Department's Organizational Chart



The Department operates as an Enterprise Fund supported not by taxes, but from fees collected through its authorized activities (Clark County Amended Final Budget FY 2001 – 2002). The Department is customer-driven and not only addresses code enforcement but also provide services to builders, designers, and developers as part of the development process.

The Administrative Division (6 persons) includes the Director of the Building Department. The Director is responsible for departmental responsibilities, assignments, and the development and enforcement of safety and construction codes. Permit Applications (33 positions) works directly with the public in coordinating departmental reviews required in land development. Responsibilities include plan reviews and tracking, issuance of permits, licensing requirements, scheduling inspections, and providing information on building requirements.

The Inspection Division (145 persons) is responsible for “inspecting construction according to approved plans and adopted codes, conducting field inspections of problems ...and

conducting post-accident investigations of buildings” (Clark County Building Department November 2000). The division also enforces code violation corrections, conducts abatement investigations, and serves as a focal point for post-disaster initial response for Clark County, and responds to emergency call-outs”(Clark County Building Department November 2000).

The Plans Examination Division (38 positions) is responsible for the review of proposed construction for compliance with codes, statutes, and ordinances. Plans are also examined for building additions, alterations and demolition and changes of use. Building permits are approved by this division.

In the Department’s Strategic Initiatives (FY2000-01), key measurement areas were identified as criteria for effectiveness for all services. These were timelines, accuracy/quality, customer service/satisfaction, and efficiency. For each performance criteria, measures were developed as a way to gauge success. In addition, a set of four goals was established for the Department and specific objectives and strategies were designed to achieve them. (Building Department, Strategic Plan Executive Summary, FY 2000-01).

2.4.2 Building Department Vulnerabilities and Impacts

The public safety function of the Department does not handle contaminated materials. During a Scenario 3 event and afterward, the Department will work with local fire departments as part of its emergency response function, but will not directly involve itself with high-level nuclear waste contamination. Its role is to assist other agencies in the event of an accident (Table 9).

TABLE 9 - BUILDING DEPARTMENT: SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS	
Building Department	Vulnerability/Impact
	Under Scenario 3, the Department may assist the fire department to assess safety, but does not evaluate hazardous materials or contamination. The Department sees its role as assisting other agencies in the event of an accident

2.5 Business License

2.5.1 Building License Background

Business licenses are the second largest generator of revenue behind property taxes in the County. The 75-person department issues licenses for all businesses in the county, collects franchise fees, audits businesses, and collects fees on casinos based on their gross revenues. The Department also collects room taxes in the Unincorporated County and allocates these to various political jurisdictions. The revenues to the Business License Department in the budget year ending June 30, 2001 are shown in Table 10 (Clark County Amended Final Budget FY 2001 – 2002). This is broken down as follows:

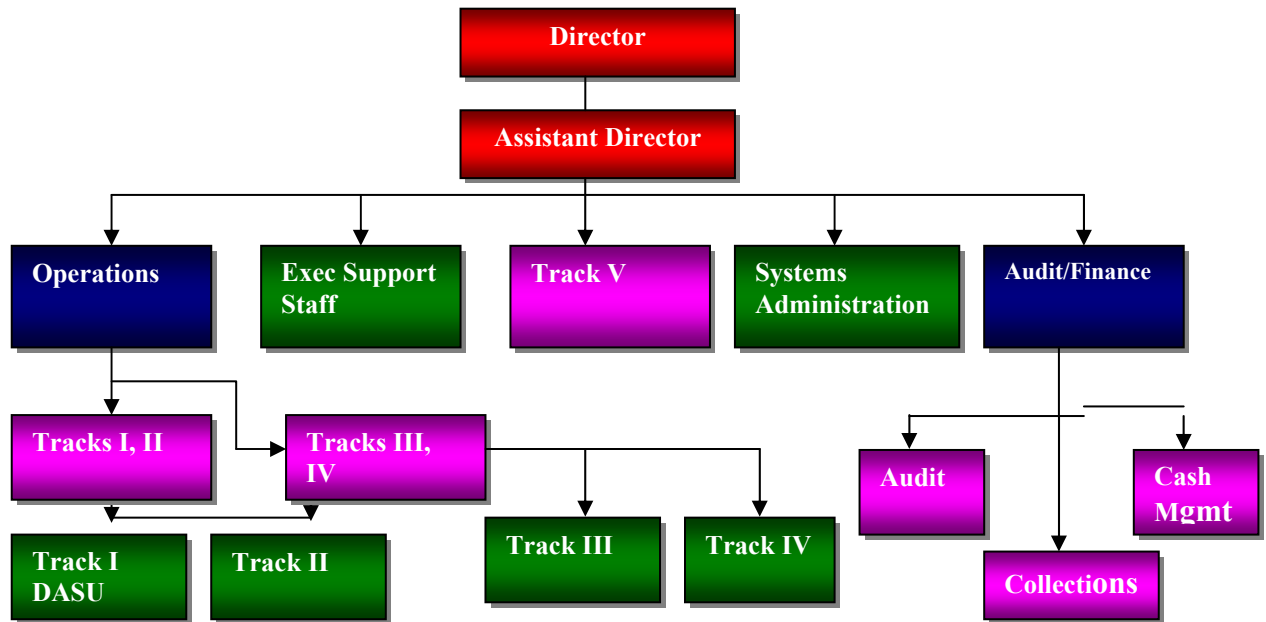
TABLE 10 - BUSINESS LICENSES REVENUES AND EXPENDITURES FY 2001

BUSINESS LICENSES AND PERMITS	ESTIMATED REVENUES FY 2001
Business Licenses	\$18,573,130
Liquor License	4,535,900
County Gaming License	30,085,290
Franchise Fees	
- Gas	1,500,000
- Electric	11,928,460
- Other	9,900,000
Other	25,915,695
TOTAL BUSINESS LICENSES AND PERMITS	\$102,438,475

FUNCTION	ESTIMATED EXPENDITURES FY 2001
Salaries and wages	\$3,666,246
Employee Benefits	\$1,208,038
Services and Supplies	\$415,846
TOTAL GENERAL FUND EXPENDITURE	\$5,290,130

The Department has five divisions under the Director: Operations, Executive Support Staff, Track V, Systems Administration and Audit/Finance (Figure 6). The Department is supported exclusively from fees collected for providing services.

Figure 6 - Business License's Organizational Chart



Source: Business License

The Department of Business License developed its strategic plan in November 1998. The department's mission is "to license and regulate business while fostering consumer confidence towards the business community." To achieve their mission several goals were identified:

- To improve the delivery of key services
- To increase efficiency and effectiveness
- To improve collection of licensing revenue

A set of objectives and strategies to meet each of these goals was articulated (Department of Business License, Strategic Plan, November, 1998).

2.5.2 Building License Vulnerabilities and Impacts

With the development of a nuclear waste transportation program under Scenario 1 and 2, the Department does not see any direct additional costs because of nuclear waste shipments. However, the possibility of a transfer station in Clark County may be licensable. If DOE goes

forward with a transfer station, Clark County will need to assess the station and to develop codes that will ensure the station is operated in a manner that protects the public health. The licensing processes needed for a transfer station could place a substantial burden on the Department.

Interviews with departmental personnel indicated that a Scenario 3 event could add significant costs to the Department. A downturn in tourism activity and support businesses to the tourist sector would result in a higher than normal audit rate as businesses change owners, users, or terminate operations. The Department would require 15 additional auditors, 2 secretaries, and 7 additional investigators, and 15 additional vehicles, for a total cost of \$2,100,908 yearly.

TABLE 11 - BUSINESS LICENSE: PREPAREDNESS NEEDS, VULNERABILITIES, AND IMPACTS	
Business License	Vulnerability/Impact
	A possible transfer station in Clark County may be licensable. Under such a proposal, the County may desire to add to the code to meet health standards.

TABLE 12 - BUSINESS LICENSE: SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS			
Business License	Cost		Vulnerability/Impact – Scenario 3
Personnel	\$1,678,778		Business licenses are the second largest revenue generator behind property taxes in the County. Under Scenario 3, a downturn in tourism will affect support businesses. Audits are needed as businesses change ownership or terminate operations. The Department would probably require 15 additional auditors, each at \$45,000 (plus benefits). An additional two secretaries would be required for billing and filing. Moreover, an additional 7 investigators would be required, plus vehicles and fuel.
Equipment	\$422,130		The Department would probably require 15 additional vehicles for the auditors at \$20,000 each.
TOTAL *, **		\$2,100,908	

* Personnel, information development/distribution, and plan development are adjusted using a 3% inflation factor.

** Equipment costs are adjusted using a 5% inflation factor through 2007.

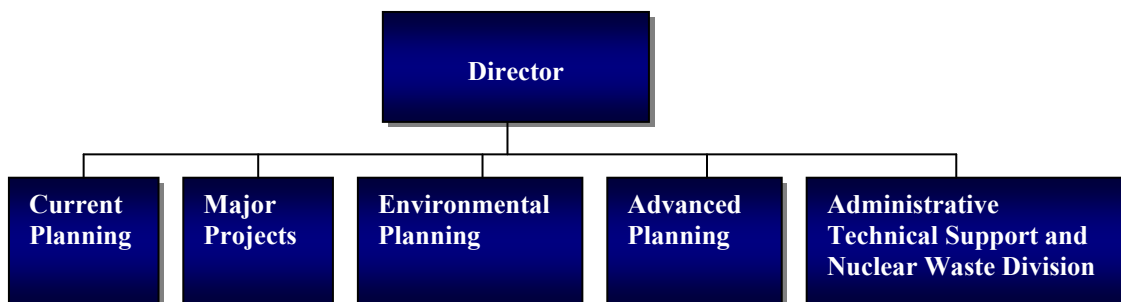
2.6 Comprehensive Planning

2.6.1 Comprehensive Planning Background

The Department of Comprehensive Planning manages current and long range planning programs that “guides development, promotes responsible use of natural resources, and balances

diverse interests to create a dynamic, livable community” within Clark County (Comprehensive Planning 2001). Based on this mission, the Department of Comprehensive Planning provides services in the following three key areas: growth management, land development, and natural resources.

Figure 7 - Comprehensive Planning Department’s Organizational Chart



Source: Department of Comprehensive Planning

In FY 2001, the Department of Comprehensive Planning estimated expenditures from the general fund for its five divisions was \$7,946,773 (Figure 7). Approximately \$6.8 million was expended for salaries and benefits with another \$1.1 million utilized for supplies and services. In addition to the general fund revenues, the Nuclear Waste Division is funded from a grant from the DOE. For the fiscal year that ended June 30, 2001, the federal grant was estimated at \$1,450,000 (Clark County Amended Final Budget FY 2001 –2002). Expenses for the NWD this period were estimated at over \$560 thousand for salaries and benefits, and another \$828 thousand for services and supplies (Clark County Amended Final Budget FY 2001 –2002). These funds are for oversight of DOE activities through the Site Recommendation phase of the Yucca Mountain Program.

The **Current Planning Division** is responsible for implementing the Clark County Comprehensive Plan and Land Use Plans or Development Guides. Specifically, the Current

Planning Division is tasked with evaluating and processing land use applications, requests for subdivisions of land, business license applications, as well as, customer service and information.

The **Major Projects Team** is responsible for managing the cross-cutting planning issues that result from major developments that is projects that are larger than 750 acres. Currently, the following six development projects fall into this category:

1. Apex
2. Pinnacle Peaks
3. Rhodes Ranch
4. Southern Highlands
5. Southwest Ranch
6. Summerlin South

The **Environmental Planning Division** manages programs to protect and preserve Clark County's natural resources. These programs can be grouped into five areas of concentration: air quality, habitat conservation, solid waste, water quality, and federal lands.

The **Advanced Planning Division** is in charge of long-range community and regional planning that promote quality neighborhoods and living environments. These programs integrate citizen involvement in the plans and strategies that are used to guide growth in Clark County.

The **Administrative and Technical Support Team** provides cross-functional administrative and technical support to the other divisions. Finally, the **Nuclear Waste Division** is charged with identifying potential impacts to Clark County residents and governmental agencies that may result from the DOE's proposal to ship high-level nuclear waste through Clark County to Yucca Mountain, Nevada.

2.6.2 Comprehensive Planning Vulnerabilities and Impacts

The NWD has a particularly important role providing oversight of DOE activities; informing other County agencies and County residents about the proposed project; and providing technical and policy support to Clark County decision-makers about the impacts of the proposed project. In addition to the six personnel currently providing oversight support, representatives of the NWD indicated in the interviews that if the DOE proceeds with its plans that the NWD will require two additional internal technical experts; a regulatory analyst and a GIS technician (Table 13). The NWD will also require additional consultant support in the areas of monitoring, technical oversight, transportation, detailed fiscal impact analysis, and policy development during the site characterization phase. The fiscal impact for the NWD's budget to adequately prepare for the shipment campaign would be \$3,130,618 per annum.

In addition to the NWD personnel interviewed, senior managers in all divisions of Comprehensive Planning were interviewed. Because of the breadth of expertise within the Department of Comprehensive Planning, representatives interviewed were able to identify an extensive list of potential impacts that may result from the DOE's proposed HLW shipment campaign. Among the key areas of vulnerability they identified, was the impact that a reduction in tax revenues resulting from stigma – related property value diminution would have on County services (Table 13).

**TABLE 13 - COMPREHENSIVE PLANNING, PREPAREDNESS,
VULNERABILITIES, AND IMPACTS**

Comprehensive Planning	Cost		Vulnerability/Impact
Personnel	\$882,058		Oversight activities during the site characterization phase will require the addition of two technical staff with expertise in GIS and regulatory analysis above the existing staff level of six.
Support Services	\$2,248,560		The NWD will have an increased need for support services in the areas of monitoring, technical oversight, transportation, and policy support during the site characterization phase.
Revenues			Any significant decrease in property taxes from the shipment of HLW would result in a reduction of services to County residents. Since growth funds new capital expenditures, if the shipment of nuclear waste results in slower growth, then the funds for new capital facilities will be adversely impacted.
Revenues			An accident event will likely reduce the number of visitors resulting in lower gaming revenues and sales taxes, which will restrict the County's ability to provide services.
Plans			Clark County's SIP may need to be redone since the slow speed that the HLW trucks will travel will increase the existing congestion problem.
Plans			Currently the properties with the highest value are nearest to the transportation corridor. If DOE proceeds, then Clark County planners will have to rethink what types of land use it wants along the corridor. Current practices place schools, daycare centers, hospitals, and senior citizen housing adjacent to the major transportation corridors to encourage accessibility. In case of an accident these facilities would be the least able to respond quickly.
Plans			In the case of an accident, Clark County residents will be dependent upon Clark County government to maintain services. Thus, Clark County needs to determine what type of facility improvements to County buildings will be needed to make sure that they are not vulnerable to a radiation release.
Health			In order to ensure the public health, the Health District will need to consider testing all school children to establish a screening baseline for measuring impacts.
Economic			The County will need to determine whether their health and facility insurance rates will go up as a result of the increased risk from the HLW shipment campaign. Similarly, the County needs to find out if homeowner insurance will increase. If so, this will adversely influence existing residents and discourage future growth.
TOTAL*		\$3.130,618	

*Personnel costs and support services have been adjusted by 3% per annum through 2007.

Several of the interviewees noted that Clark County is dependent on growth to pay for capital facilities and a stigma-related reduction in property tax revenues would adversely impact the County's ability to fund new capital facilities. In addition, any reduction in visitation associated with the stigma of the proposed HLW shipment campaign, will also adversely affect the County's ability to provide services to residents because of revenue shortfalls.

Environmental planning staff noted that Clark County has undertaken vigorous efforts to improve air quality that are documented in the State Implementation Plan (SIP). If the trucks carrying HLW slow the traffic flow resulting in further aggravation of the existing congestion problem, then the County will likely need to rewrite their SIP. In addition to the resources that this would require to redo the plan, there may be additional penalties from the EPA if the increased congestion results in further deterioration of air quality.

Several Comprehensive Planning staff also indicated that the fundamental premises that guide Clark County's planning process would need to be reconsidered if the DOE proceeds with the shipment of HLW through the Valley. Currently, Clark County encourages the siting of schools, hospitals, day care centers, senior citizen centers, and intermediate and long-term health facilities in areas that are easily accessible to the major highway corridors. These same highways have been proposed as the shipment corridor for HLW.

The issue of siting facilities such as schools, recreation centers, and hospitals near major highways because of accessibility was identified by other departments and detailed in this report. The impacts on various developments and facilities existing and planned near possible shipment routes may be significant. The costs associated with these possible impacts (e.g. schools relocations) cannot be measured at this time. Specific studies on these impacts due to location should be completed.

The County will also need to review its Capital Plans to determine whether County buildings and other key facilities would be protected in the event of an incident where radioactive materials are released into the environment. In an accident event, county residents would become increasingly reliant on government services and thus, it is critical that the County fully understand whether their facilities are vulnerable to a radiation release.

Comprehensive Planning staff also noted that in order to ensure the public health, the Health District would need to consider testing all children in order to establish a baseline for screening potential future adverse health impacts. This item was identified by the County Health District among other impacts and addressed later in the report. The staff also noted that there might be other financial costs to the County if insurers add a risk premium to employees' health insurance rates. Increased insurance rates from higher risk premiums may also affect homeowners' insurance making the County less attractive for future growth.

Finally, Comprehensive Planning staff indicated that if a Scenario 2 or 3 event occurred, the implications for County revenues would be significant. Studies to measure and estimate the potential revenue losses and their implications will be an important next step in understanding the potential range and magnitude of potential impacts. With this type of information, county agencies will have the ability to make more refined estimates of the potential impacts and their agencies needs.

TABLE 14 - COMPREHENSIVE PLANNING: SCENARIO 2 AND 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS	
Comprehensive Planning	Vulnerability/Impact –Scenario 2 and 3
	Under Scenario 2 and 3, major development is likely to be adversely impacted for at least some period. This has adverse implications for the economy as well as the ability of government to provide services. Studies need to be completed to determine the potential extent of revenue losses to Clark County that will result from a slow down in development.

2.7 County Clerk

2.7.1 County Clerk Background

The County Clerk's office was established in 1909, to support the judicial departments of the Eighth Judicial Court. In addition to being the ex officio Clerk of the Eighth Judicial Court, the County Clerk serves as an ex officio Clerk of the:

- Board of County Commissioners;
- Board of Equalization;
- County Liquor and Gaming Licensing Board;
- Kyle Canyon Water District; Clark County Sanitation District; and
- General Obligation Bond Commission.

The Clerk's Office also performs a variety of other services including the issuance of marriage licenses, as well as, the performance of marriage, swearing in Notary Publics, tracking the filing of firm names, and processing of passport applications.

The County Clerk estimated that 128,000 marriage licenses would be issued in 2001, generating approximately \$7,040,000 in revenue. "This revenue is divided between the County General Fund, the Recorder's Office, and state programs for victims of domestic violence" (Correspondence Clark County Clerk's Office November 1, 2001). The County Clerk also "estimates that 16,000 marriages will be solemnized by deputy county clerks during 2001, generating approximately \$800,000 in revenue" (Correspondence Clark County Clerk's Office November 1, 2001). Ninety percent of the revenues generated from this function goes into the County General Fund, while the remainder goes into the State of Nevada's domestic violence programs.

The estimated expenditures from Clark County's General Fund for the period ending June 30, 2001 was \$12,728,514. Almost \$12 million of these expenditures were for salaries and benefits with the remaining allocated to supplies and services.

2.7.2 County Clerk's Office Vulnerabilities and Impacts

If the construction of the Yucca Mountain project and its related HLW shipment campaign proceeds without incident, the Clark County Clerk's Office may only be minimally impacted. Based on discussions among key senior staff within the Clerk's Office, two potential vulnerabilities were identified (Table 15). First, the extensive and deep opposition to the Yucca Mountain project and the accompanying concerns about the increased risk to public health and the community's well being may contribute to staff in the Clerk's Office migrating out of Clark County. This could make it more difficult and expensive to attract and retain qualified employees.

The Clerk's Office could also face reductions in staff, if the transport of HLW results in a general economic downturn as has been indicated by several of the studies conducted to date in behalf of Clark County and the State of Nevada (Table 15). Since an economic downturn would result in reduced sales tax revenues flowing into Clark County, there would likely be the need to reduce staff.

TABLE 15 - COUNTY CLERK: PREPAREDNESS, VULNERABILITIES, AND IMPACTS	
County Clerk	Vulnerability/Impact
Personnel	Staff turnover caused by individuals moving away from Clark County due to quality of life issues.
Personnel	Possible economic downturn, reduced sales tax revenues resulting in reductions in staff.

In the event of a Scenario 2 incident, the range of impacts that are likely to be experienced by the Clark County Clerk's Office are much broader and more significant. According to key personnel within the Clerk's office, if an accident occurred, even if there was

no release of radiation, upwards of 20% of the staff may not report to work, some may even stay home for several days, until they are assured that there is no risk (Table 16). Additional personnel problems that are likely to arise under this scenario, is an increase in the turnover rate within the Clerk's Office, as some employees migrate from the Las Vegas Valley. Among the employees who may not have the option to relocate, there is likely to be higher rates of absenteeism due to stress and illness.

As Clark County residents migrate from the area and as the Valley becomes less attractive for tourism, County revenues will decline, resulting in the need for lay-offs among Clark County personnel (Table 16). Of particular concern to the Clerk's Office, is the likely decline in the rate of marriage licenses issued and marriages performed. As noted above, over \$7 million in revenues are generated annually from the issuance of marriage licenses by the Clerk's Office and another \$800 thousand is generated from deputy clerks solemnizing marriages. Under Scenario 2, some level of decline in this revenue is expected.

Key personnel within the Clerk's Office also indicated there is increased congestion resulting in residents turning in large numbers to mass transit, the low income are likely to be adversely affected since they utilize public transportation to access the courts (Table 16). Other public safety issues that are likely to arise if there is a reduction in personnel are delays in the processing of felony cases, as well as, delays in the issuance of domestic violence orders, and the response rate for juvenile delinquency and neglect cases.

TABLE 16 - COUNTY CLERK: SCENARIO 2 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS	
County Clerk	Vulnerability/Impact
Personnel	Immediate impact on estimated 20% of staff unable to get to work on date of the incident. A few staff may choose to stay at home for several days until they are certain no danger exists.
Personnel	Increased staff turnover as a result of individuals moving away from Clark County due to quality of life issues.
Personnel	Increased absenteeism of staff due to stress and illness.
Revenues/Personnel	General economic downturn. Jobs tied to tourism, construction, and development decrease. Reduced revenues require Clark County to implement lay-offs.
Revenue	Substantial negative impact on revenue generated from issuing marriage licenses and performing marriage ceremonies for non-residents. Las Vegas would no longer be an attractive marriage destination.*
Transportation	Increased traffic congestion for indefinite period due to public avoiding use of the Beltway and I-15. This could last for months. Negative impact on public transportation, which in turn affects access to the court for low-income families.
Public Safety	Public safety issues arise due to delays in processing felony criminal cases, protective orders against domestic violence, juvenile delinquent and juvenile abuse/neglect cases.

The nature and extent of impacts to the Clerk's Office grow even larger under a Scenario 3 event. Under this scenario, the County Clerk's Office indicates that there will be community-wide panic, which will compromise safety in public buildings, during the event. The staff from the Clerk's Office indicated that a "majority of staff" would be "unable or unwilling to report for work for 7 – 14 days" (Table 17) (Correspondence Clark County Clerk's Office November 1, 2001). Out-migration of experienced staff would increase substantially, as staff abandoned their homes to move away from Clark County (Correspondence Clark County Clerk's Office November 1, 2001). Those staff that could not relocate would likely experience increased absenteeism related to stress and other stress-related illness. In addition, there is the potential for a large class action lawsuit resulting in the County Clerk's Office needing to hire additional 3 or 5 personnel to process the paperwork over a several year period. These costs could exceed \$380 thousand. This increased need for staff would occur at a time when the accident would have triggered a massive downturn in tourism sector, devastating the economy, and resulting in Clark

County needing to layoff personnel. Interviewees suggested that these reductions in staff would increase the workload on those that remain resulting in less attractive work conditions and a lower level of service to customers.

Revenues collected by the County Clerk's Office would also likely decline as the number of marriage licenses issued plummeted by upwards of 75% (Table 17). The decline in marriage license revenues and revenues collected from deputy clerks solemnizing marriages could drop by over \$7 million.

As in Scenario 2, transportation problems would hinder access by the low-income to the courts as large numbers of County residents refuse to use I-15 or the Beltway, turning instead to public transit (Table 17). In addition, the delays in handling a full array of court cases that was identified as a likely impact under a Scenario 2 event becomes even more severe under Scenario 3. Although many of these impacts cannot be accurately forecasted with current levels of information, the partial costs to the County Clerk's Office that have been projected under this scenario exceeds \$7.3 million.

TABLE 17 - COUNTY CLERK: SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS			
County Clerk	Cost		Vulnerability/Impact
Personnel			Community-wide panic. Safety in public buildings compromised.
Personnel			Majority of staff unable or unwilling to report for work for 7-14 days.
Personnel			Substantial numbers of staff choose to quit jobs, abandon homes, and move away from Clark County.
Personnel			Staff who remain have increased incidents of illness, absenteeism, stress, etc.
Personnel	\$383,721		Possible large class action lawsuits filed against corporation that owns/operates gasoline tanker as well as others. Lawsuits could be in litigation for several years. Clerk would need to dedicate 3-4 FTEs to process paperwork, maintain evidence, and provide courtroom clerk support.
Personnel/ Economy			Massive economic downturn. County forced to impose substantial lay-offs. Some individuals feel Las Vegas will be reduced to a ghost town. Tourism, which is the core of the Las Vegas economy, will die

TABLE 17 - COUNTY CLERK: SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS			
County Clerk	Cost		Vulnerability/Impact
			completely.
Personnel/Quality of Life			Increase in lawsuits, with reduced staff to process paperwork, causing poor customer service, and delays.
Revenue	\$6,946,328		Marriage industry incapacitated. Near complete elimination of marriage licenses issued to non-residents. Total number of marriage licenses issued could be reduced by 75% or more.
Transportation			Traffic congestion increases indefinitely due to public's inability, or refusal, to use sections of I-15 and Beltway. Negative impact on public transportation, which in turn affects access to the court for low-income families. <i>Of course, there may be no traffic congestion at all, if large numbers of individuals chose to move away from Clark County, which is a common prediction.</i>
Public Safety			Serious public safety issues arise due to substantial delays in processing felony criminal cases, protective orders against domestic violence, juvenile delinquent and juvenile abuse/neglect cases. Increase in incidents of violence at adult and juvenile detention facilities as prisoners do "dead time" while awaiting finalization of orders to transport to other facilities.
TOTAL*		\$7,330,049	

* Personnel and revenue losses from reductions in the number of marriage licenses issued, and marriages solemnized are adjusted using a 3% inflation factor through 2007.

2.8 District Attorney

2.8.1 District Attorney's Office Background

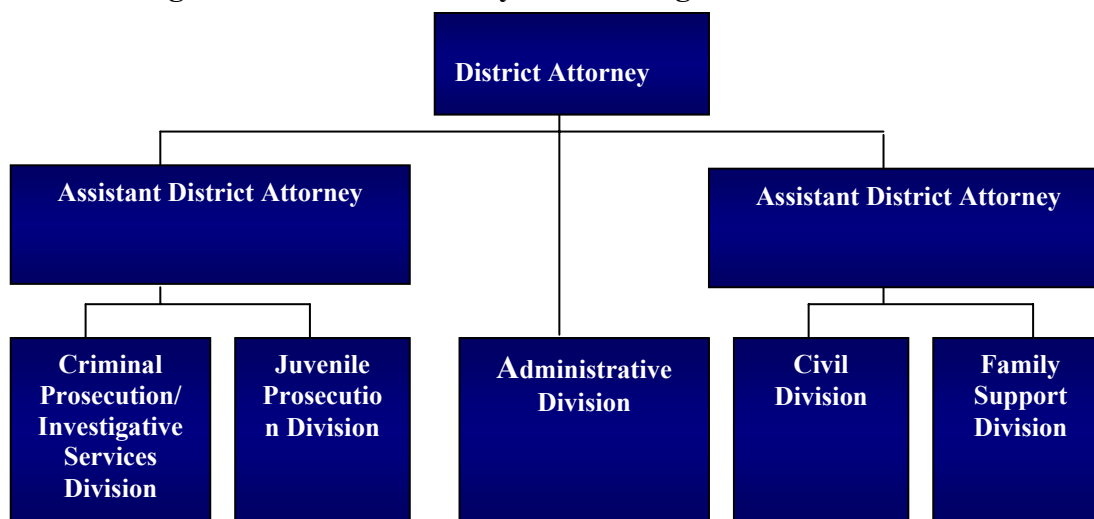
Interviews with personnel from the District Attorney's Office revealed that approximately 120 attorneys are employed in the Office. The organizational chart of the Office shows that the Administrative Division under the District Attorney is broken down into two distinct divisions, Finances/Facilities and Human Resources/Systems that includes a large Information Services Team (Figure 8). Outside of the Administration Division, the Office has four other key divisions under two Assistant District Attorneys. The four divisions are as follows: the Criminal Prosecutor/ Investigative Services Division; Juvenile Prosecution Division; Civil Division; and the Family Support Division. The Civil Division is further broken down into

three principal teams including Property and Growth, General Council, and the Litigation team. The two attorneys currently working on matters related to the nuclear waste program are in the District Attorney Civil Division, one on the General Council Team and the other on the Litigation Team. By far, the Criminal Division has the largest number of attorneys (75) compared to 25 attorneys in the Civil Division.

The District Attorney's office expended approximately \$29 million of General Fund revenues in the fiscal year ending June 30, 2001. The vast bulk of these revenues, almost \$26 million were expended on salaries, benefits. The remaining expenditures were related to services and supplies, and witness/legal fees.

The allocation of effort between the two attorneys involved with the nuclear waste program is as follows. One attorney supports other governmental agencies involved with this issue and reviews a variety of county and federal documents on the topic. Approximately 20 percent of the FTE is allocated to this task. Although the nuclear waste issue has not dominated the Office's time, there is growing concern that property value impacts and condemnation cases may be a future issue of considerable importance in the Office. In fact, litigation in the area of property value diminution resulting from future use of the beltways for nuclear waste shipments has already commenced.

Figure 8 - District Attorney's Office Organizational Chart



Source: District Attorney's Office

2.8.2 District Attorney's Office Vulnerabilities, and Impacts

Table 18 shows the summary of impacts that the District Attorney's Office will need to prepare for because of the possible shipments of nuclear waste through Clark County. Currently, 20 percent of one District Attorney's time is allocated to property value issues in addition to informing other agencies about the legal and policy issues related to the nuclear waste repository program. These issues will be amplified if the shipment campaign commences and will require additional time and support. Personnel in the Office estimated additional support needs at a cost of over \$139,000 annually. Currently, there may be up to 10 properties along the Northern Beltway that fear significant property value diminution that may result from nuclear waste transport along that route. The Office may see inverse condemnation cases for damage to properties along any "designated" route. Not only will this issue result in serious time allocations in the Office but may also result in future claims against the County.

TABLE 18 - DISTRICT ATTORNEY: PREPAREDNESS, VULNERABILITIES, AND IMPACTS			
District Attorney	Cost		Vulnerability/Impact
Personnel	\$19,186		Currently 20% of one Assistant District Attorney allocated to property values/condemnation issue and work with other agencies.
Personnel	\$120,220		If transportation program commences, these issues will be significant and require 1.0 FTE (up to the start of the program), plus 0.5 FTE support person per year. If the County were to take a legal position (litigation and licensing issues), then an additional full-time attorney and assistants would be required.
			It is possible, (but currently speculative) that if the County designates routes for nuclear waste shipments, or has some authority over the routes, they may be liable for the loss of value of properties along the route – inverse condemnation cases.
TOTAL*		\$139,406	

* Personnel, information development/distribution, and plan development are adjusted using a 3% inflation factor.

Under Scenario 3, litigation actions would increase significantly and would require up to three or more FTE attorneys and assistants for a two-year period at a minimum, plus possibly one criminal attorney (Table 19). If this scenario occurs, the costs to the Office would be over \$578,000 annually for at least two years.

TABLE 19 - DISTRICT ATTORNEY: SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS			
District Attorney	Cost		Vulnerability/Impact – Scenario 3
Personnel	\$578,041		Under Scenario 3, litigation would increase significantly and would require 3 attorneys and assistants for a 2-year period at a minimum, plus 1 criminal attorney.
TOTAL*		\$578,041	

* Personnel, information development/distribution, and plan development are adjusted using a 3% inflation factor.

2.9 Finance

2.9.1 Finance Background

The County Manager directs the Department of Finance, which includes the divisions of Budget & Financial Planning, Community Resources Management, Risk Management, Comptroller, and Financial Systems (Figure 9). The Comptroller's Office is “responsible for both external and internal financial reporting as well as the processing and maintenance of all official

accounting records” (Clark County Web Site). Thus, the Comptroller's Office acts as the central coordinating financial agency of the County that produces the Comprehensive Annual Financial Report (CAFR) The CAFR is audited yearly by the County's external auditors. Among the accounting functions carried out by the Comptroller's Office are:

- General ledger,
- Payroll,
- Accounts payable,
- Accounts receivable,
- Fixed assets,
- Cost allocation,
- Data control, and
- Maintenance of all historical financial data.

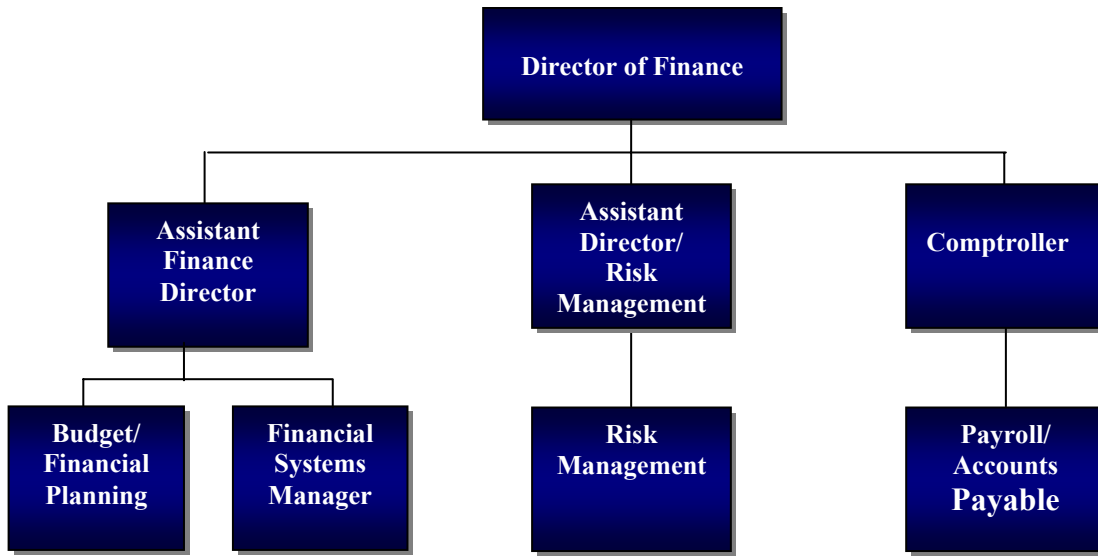
The Budget Division prepares and submits the County budget to the Board of County Commissioners for approval. The Budget Division also monitors and controls County expenditures and ensures budgetary compliance of County agencies. The Division of Financial Planning is in charge of preparing both long-range and short-term financial plans for the County. The Division of Financial Planning also manages the County's capital financing program. This includes the structuring and issuance of general obligation bonds, revenue bonds, industrial development bonds, short-term financing, refundings, interim debentures and certificates of participation. Financial Planning also support the County Management in assessing the fiscal impact of programmatic decisions and special projects. Further, the Division of Financial Planning recommends financial policies and guidelines for all of Clark County operations.

The Division of Community Resources Management manages the County's economic development efforts and also identifies and procures alternative federal, state, and foundation revenue sources for County programs. Community Resources Management tracks grants to insure compliance with granting agency requirements; identifies surplus County property for sale or exchange; and promotes minority and women business development, affordable housing, homeless activities, job training, nonprofit agency development, fair housing, and the administration of federal grant programs at the County level. Thus, Community Resources Management serves as the coordinating entity for “the County Commission in working to improve the living conditions of the low and moderate income in this community” (Clark County Web Site).

The Risk Management Division directs the County’s self-funded insurance pools for group health and life insurance, workmen's' compensation and general liability, as well as, managing insurance policies for the County covering excess liability claims, and property damage to buildings and equipment. The Risk Management Division also oversees safety and training programs for County personnel. The Financial Systems Division provides operational support of the County's financial systems.

The Finance Department budget for the year ending June 30, 2001 includes approximately, \$3.3 million for finance functions and \$1.7 million for the Comptrollers office. The vast majority of expenditures in these offices are for salaries and benefits.

Figure 9 - Finance's Organizational Chart



Source: Department of Finance

2.9.2 Finance Vulnerabilities and Impacts

The Director of Finance indicated that a downturn in County revenues would likely result in staff reductions although he indicated that the most significant cuts would likely occur in service related agencies (Table 20). Further, he noted that Clark County pays for additional services through growth generated revenues. He noted that at current growth rates, it would take the County 50 years to generate a sufficient increase in revenues to provide the \$275 million plus in expenditures that have been estimated in an earlier study to adequately prepare the public safety agencies for a HLW shipment campaign (UER 2001).

TABLE 20 - FINANCE: PREPAREDNESS, VULNERABILITIES, AND IMPACTS	
Finance	Vulnerability/Impact
	To the extent that sales tax and property revenues fall because of the shipment campaign, the Finance Department may be forced to reduce staff. More likely, service departments will be adversely impacted.
	At the current rate of growth of Clark County revenues, it would take 50 years to generate sufficient new revenues to fund the \$275 million in public safety impacts that have been identified in an earlier study for the NWD..

In the event of a Scenario 3 accident, the Director of Finance indicated that the impacts would effectively bankrupt Clark County, because the County could not lower expenditures sufficiently to offset the downturn in revenues that would occur. He also noted that the State would also likely go bankrupt if a Scenario 3 event occurred (Table 21).

TABLE 21 - FINANCE: SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS	
Finance	Vulnerability/Impact – Scenario 3
	Under a Scenario 3 event, the County would be effectively bankrupt since it could not lower costs sufficiently to offset the downturn in revenues. The State of Nevada would also likely be bankrupt under a Scenario 3 event.

2.10 General Services

2.10.1 General Services Background

The General Services Department has identified four key service areas of responsibilities in the Department's Strategic Plan (General Services Strategic Plan, Fiscal year 2000-2001).

These are:

- Acquire assets, services and supplies for Clark County;
- Protect and maintain Clark County assets;
- Provide operational support to Clark County departments
- Provide assistance to local small and minority businesses

The Department is the internal service provider to all County departments. For example, the Department has responsibilities for establishing and implementing contracts between County Departments and private service providers. The Department also provides custodial, copying and mail services for the County government and maintains the vehicular fleet for County departments. In emergencies, the General Services Department acts in a supportive capacity to all governmental departments to assure supplies, equipment and fuel are available for use by

County personnel. The Department is responsible for logistics and assuring that available resources are brought to bear in a timely fashion. For example, if the Emergency Operations Center (EOC) is activated, the department will set it up operationally and assure security and logistical support.

The Department of General Services expended approximately \$8.6 million for the fiscal year that ended June 30, 2001. Approximately \$6.5 million was for salaries and benefits with the remaining \$2.0 million for services and supplies. Currently, the department consists of 187 FTES divided into five divisions (Figure 10):

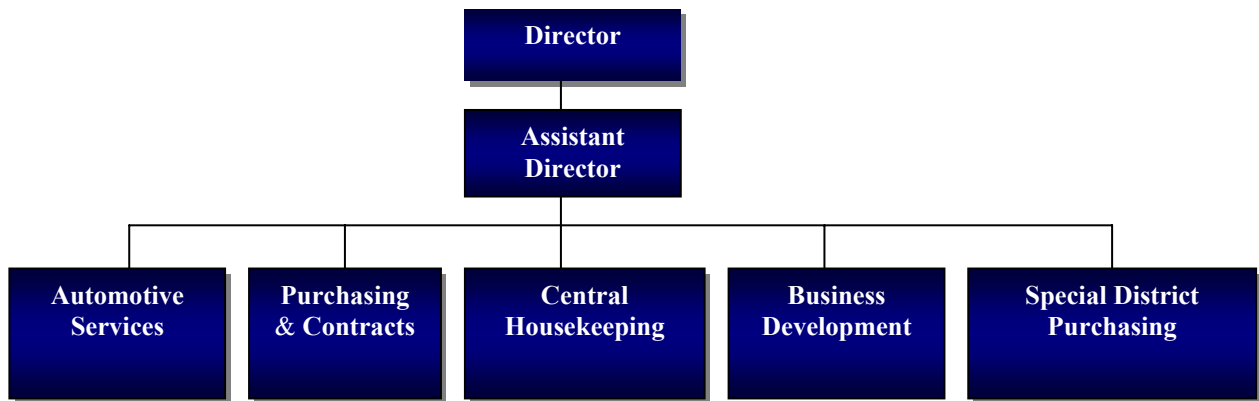
- Automotive Services (32 FTES)
- Purchasing and Contracts (23 FTES)
- Central Housekeeping (116.5 FTES)
- Business Development (3.5 FTES)
- Special Districts Purchasing (10 FTES) (e.g. Water District)

In fiscal year 2002, the operating budget included \$9,354,920 for Administration, Purchasing, Housekeeping, and Business Development. Another \$582,585 was allocated for the County's parking garage; \$10,003,651 for automotive functions; and \$8,290,060 for central services. The department is responsible for the county's automotive fleet, which consists of 413 heavy-duty, 1,486 light-to-light medium, and 113 bi-fuel vehicles.

The Business Development section provides training, outreach, and support to local minority or physically challenged business community. Central Services provides in-house custodial functions for 15 County buildings daily and requires 44.5 FTES. Another 84 public buildings are contracted out for custodial services. Central Services also provide outgoing mail services; central duplicating processes (791 jobs/month), and operates a shuttle bus service for

county buildings. The Purchasing unit purchases goods, services, and construction items. They review an average of 600 contracts per year that requires the approval of the Board of County Commissioners.

Figure 10 - General Services Organizational Chart



Source: General Services

2.10.2 General Services Vulnerabilities and Impacts

As stated above, the Department serves in a support capacity to other County agencies for purchasing, contracting, fueling, and maintenance of County property. This report, as well as an earlier report on the public safety impacts resulting from the Yucca Mountain project has demonstrated significant additional needs for personnel, equipment, and training. These additional requirements will place an increased burden on the Department of General Services in all areas, including purchasing, leasing, contracts, custodial maintenance, printing etc. Under Scenario 1, departmental personnel that were interviewed indicated the need for two additional staff at a cost of \$143,895 per year plus benefits at 2007 salaries (Table 22). These costs do not include additional custodial costs.

TABLE 22 - GENERAL SERVICES: PREPAREDNESS, VULNERABILITIES, AND IMPACTS

General Services	Cost		Vulnerability/Impact
Personnel	\$71,948		Under Scenario 1, the Department will require one additional person for coordination of contracts related to bids, and printing bids etc.
Personnel	\$71,948		Due to additional contracts (especially related to public safety), one additional purchasing analyst will be required.
	NA		The Department serves in a supportive capacity to other County agencies, especially in purchasing, outsourcing, contracts, fueling, vehicular purchases, and maintenance. Other studies have estimated additional staff requirements and space. This will require additional processing for the department and maintenance/custodial efforts, which fall within this department's responsibility. The costs will be a function of the total additional space and staff that will be required by all other County agencies because of the HLW shipment program.
TOTAL*		\$143,895	

* Personnel costs are adjusted using a 3% inflation factor through 2007.

Under Scenario 2, with property values declining and tourism visitations down, the department will have to reallocate priorities (Table 23). Temporary overtime costs were estimated at \$50,000. Under a Scenario 3 event, departmental personnel interviewed identified the need for an additional 10 percent in personnel expenditures to handle contractual demands. This would amount to an additional \$1,295,057 per year plus a 20 percent increase in supplies and services (\$3.0 million/year) (Table 24). If county properties were harmed, replacement costs would also be significant.

TABLE 23 - GENERAL SERVICES: SCENARIO 2 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS

General Services	Cost		Vulnerability/Impact – Scenario 2
Personnel	\$50,000		Under Scenario 2, costs will be specific and related to temporary overtime costs.
TOTAL*		\$50,000	

* Personnel costs are adjusted using a 3% inflation factor through 2007.

TABLE 24 - GENERAL SERVICES: SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS			
General Services	Cost		Vulnerability/Impact – Scenario 3
Personnel	\$1,295,057		Under Scenario 3, the Department will have to support, all other departments in contracts, custodial/clean up efforts, (e.g. contracts to support evacuation centers). Costs will be a function of impacts to County property and needs for clean up. The Department staff estimated that they might require an additional 10% in personnel to deal with contractual demands. Based on current staff, this will amount to an additional 18 FTE.
Equipment	NA		Under Scenario 3, the Department will also require an additional 20% in supplies and services.
TOTAL*		\$1,295,057	

* Personnel costs are adjusted using a 3% inflation factor.

2.11 Health District

2.11.1 Health District Background

A review of the County Health District's budget for FY 01-02 showed budget revenues of \$48,819,244 with an opening fund balance of \$4,204,471. The revenue flow to the Health District comes from the following sources:

- Tax receipts distributed by County
- Regulatory revenue
- Federal grants
- State funding
- Fee for service
- General receipts
- Program contract services
- Title XIX

Total expenditures were estimated to be \$48,773,061. Expenditures were broken down as follows: salaries, \$20,889,893; fringe benefits, \$6,114,400; services and supplies, \$20,827,768 and capital outlay, \$941,000. (Clark County Health District, Budget 2001-02).

The **Health Department** has four divisions: **Nursing and Clinics**, **Environmental Health**, **Air Quality**, and **Administration**. The Air Quality Division has plans to leave the Health District. The current budget distributions are as follows: **Nursing and Clinics** \$15,289,7061; **Environmental Health** \$6,470,632; **Air Quality** \$6,479,236; **Maintenance** \$1,988,051; and **Administration** \$18,005,436.

The **Nursing and Clinics Division** provides family-centered health care to individuals through health maintenance, health education, and coordination of care. Services are provided at various medical centers. Approximately, one-half million clients are provided services by programs in this division. Services include immunization, general nursing, family planning, health care, AIDS evaluation, TB control, home care services, and senior health screening.

The objective of the Health Division is to protect the environment in Clark County through education as well as enforcement of State and Health District regulations for the following areas: food services establishments; swimming pools; hotels and motels; childcare facilities; schools; conventional facilities; and hazardous waste management.

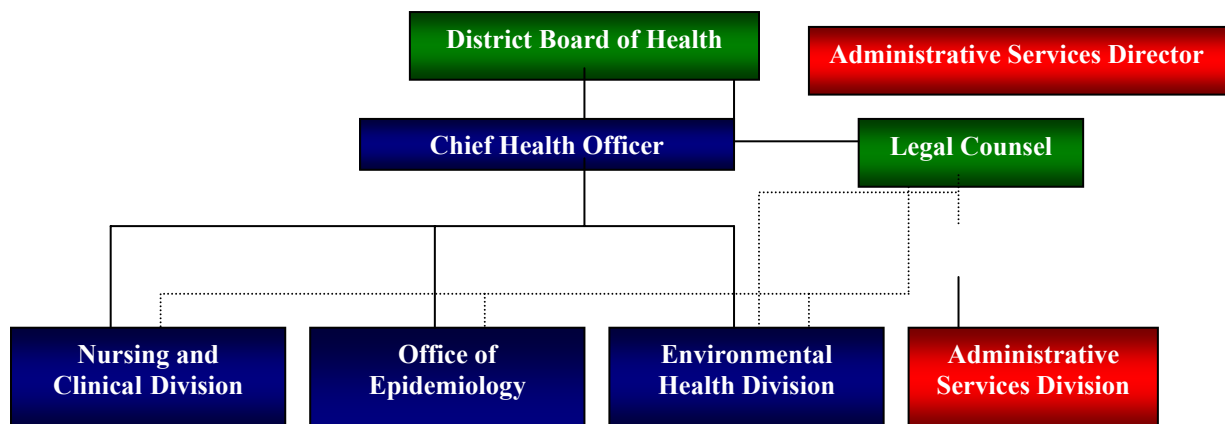
The Health District management is provided by the Chief Health Officer through the **Administration Division** (Figure 11). All administrative functions are found in this division. Other programs budgeted within the Administration Division include emergency medical services, epidemiology and poison control.

Emergency Medical Services, Environmental Health, and the Office of Epidemiology will need to provide essential services in case of a Scenario 3 accident. The Office of

Epidemiology conducts surveillance of communicable diseases in Clark County; implements control measures and reports to the Nevada State Health Division. The staff from this office works closely with the Environmental Health Division. This past year the Office participated in the Centers for Diseases Control and Prevention Influenza Surveillance Program. In addition, the Office of Epidemiology provides information to health professionals, schools and daycare facilities. (Clark County Health District, Report to the Community, 1999-2000).

The **Emergency Medical Services Division** (EMS) is housed in the Administrative Division alongside Health Education and Public Information. The entire spectrum of costs for hospital needs was covered in the Clark County Public Safety Governmental Cost Report. In this report, the cost estimates and additional demands resulting from nuclear waste shipments are limited only to the **Emergency Medical Services Division** of the Clark County Health District. The EMS has a Program Manager that reports directly to the Chief Health Officer. There are two EMS coordinators, one field representative, and four administrative personnel. Currently, personnel from the EMS are involved in County emergency management meetings (LEPC) and in addressing bio-terrorism and nuclear incidents with respect to emergency medical responses.

Figure 11 - Health District's Organizational Chart



Source: Clark County District Board of Health

2.11.2 Health District Vulnerabilities and Impacts

As in previous cost estimates, these were broken into two sets of cost estimates. The first set focused on the costs of preparing the Health District to meet a possible contingency; the second set, are additional costs that would result from a Scenario 3 accident.

Although the District's **EMS Division** is involved with other jurisdictions on County emergency planning and the role of the EMS, the EMS is not trained or staffed to respond to a nuclear waste incident. The District will require a comprehensive emergency medical response plan, training, and exercises, including equipment and protective gear for a radiological incident (Table 25). While these costs were covered in an earlier Public Safety Impact report, additional costs that the Health District would incur include all costs for participation in all emergency planning activities at the local, County and State levels. Such costs may be substantial, but specific cost estimates for this activity were not provided at this point in the analysis by those interviewed.

The Health District personnel will require training in radiological health and protection. The costs for training of District Health personnel, salaries, and airfare were estimated at \$882,000 in year 2007 (Table 25). Another \$166,033 would be required for 60 persons in management to take the one-week "RAD 1" training course.

TABLE 25 - HEALTH DISTRICT: PREPAREDNESS, VULNERABILITIES, AND IMPACTS			
Health District	Cost		Vulnerability/Impact
Personnel	\$383,721		Under the first two scenarios, four additional support staff per year for education and public information dissemination.
Equipment	\$1 to 3 million		A computer system and training for environmental health inspections, and an EMS communications system (currently being phased in) will be required.
Training	\$882,050		Training will be required of all staff in the Health District. Salaries for 425 personnel will be required for the 40-hour "Rad 1" training. The costs will include airfare and salaries.
Training	\$166,033		Approximately 60 persons in management will require the one-week "Rad 1" training. The costs will include airfare and salaries.

TABLE 25 - HEALTH DISTRICT: PREPAREDNESS, VULNERABILITIES, AND IMPACTS		
Health District	Cost	Vulnerability/Impact
		Currently the Health District staff is not trained to respond to a nuclear waste accident. The district has a role as part of the County's emergency plan, but it has not been developed for nuclear waste accidents. The District is involved in a "plan for action" for bio-terrorism and nuclear incidents through a grant with the City of Las Vegas.
Personnel	NA	The district will require the development of a comprehensive emergency medical response plan, training, and exercises including equipment and protective gear. (The costs for EMR were covered in the Public Safety reports for the County). Additional costs that the Health District would include personnel costs for participation in all emergency planning activities at the local, county, and state levels.
TOTAL*, **		\$2,431,804 to \$4,431,804

* Personnel and training costs are adjusted using a 3% inflation factor through 2007.

** Equipment costs are adjusted using a 5% inflation factor through 2007.

Four additional support staff per year will be required at the start of the nuclear waste shipment campaign, essentially for education and public information at a cost of \$383,721 per year (Table 25). Interviews with Health District personnel also identified the need for a computer system capable of various health data interactions, assessments, and support of EMS communications. The system and training may require an estimated \$1 to \$3 million.

Specific additional needs were identified by the Health District under a Scenario 3 accident event. As part of an emergency response by the District, most routine services offered by the District would be altered. For example, health care nurses would be sent to hospitals; a health monitoring system would need to be established; public health personnel would be allocated to shelters, among other emergency response functions related to health. The length of such needs are uncertain given the scenario, as are overtime payments, and costs of substitution for day-to-day operations.

However, it was clear that with a serious nuclear waste transportation accident, additional professional staff would be required. Table 26 reports a cost of \$503,633 yearly plus leased office space and equipment at an estimated cost of \$307,468 per year.

TABLE 26 - HEALTH DISTRICT: SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS			
Health District	Costs		Vulnerability/Impact – Scenario 3
Personnel	\$503,633		With a nuclear waste transportation accident, the epidemiological section would expand. An electronic reporting data system would be required including training, and four additional professional staff including a bio-statistician, a “data miner,” and a programmer. In the environmental health division, 3 additional staff would be required (2 in health education).
Equipment	\$307,468		Under these long-term conditions, additional office space would be needed (10,000 sq. ft.) plus office equipment (\$250,000 per year).
	NA		Under Scenario 3, all District routine services would change. County Health nurses would be sent to local hospitals; a health monitoring and data collection program would be established; public health personnel would be allocated to shelters.
TOTAL*, **		\$811,101	

* Personnel, information development/distribution, and plan development costs are adjusted using a 3% inflation factor through 2007.

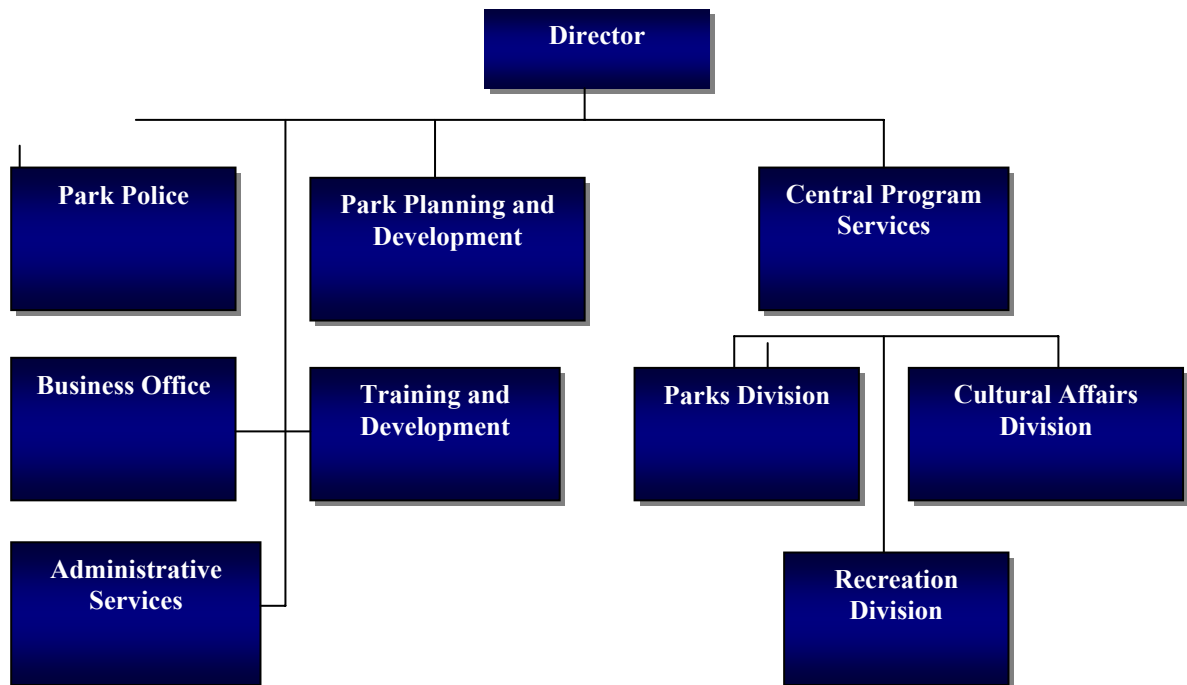
** Equipment costs are adjusted using a 5% inflation factor through 2007.

2.12 Parks and Recreation

2.12.1 Parks and Recreation Background

The Department of Parks and Recreation was established by Clark County in 1963. Park policy was first developed in the 1966 General Plan. In 1974, park standards were established and the County established a Residential Construction Tax for developing Parks. A Master Plan describing park needs was completed in 1984. In 1992, an updated Master Plan was released that included information on public attitudes related to parks and recreation facilities. Recently a 2000-2020 Master Plan for parks and recreation was completed. The Plan is a broad policy and management tool to guide decision making on park development. Currently the Department manages 39 park facilities totaling 616.8 acres in the urban unincorporated areas of the County.

Figure 12 - Parks and Recreation's Organizational Chart



Source: Parks and Recreation

Several issues were identified in the master plan, all of which could be impacted by nuclear waste shipments through Clark County. These were:

- The need to acquire park sites in advance of community needs.
- The need to integrate park sites with community development plans.
- The need to link and connect park facilities
- The need to retrofit and improve existing parks.

The Parks and Recreation Strategic Plan (FY 2001-2005) have as its first goal the maximization of resources to provide parties, recreation, and cultural services and to provide performance measurements. It reflects a serious and committed approach to meet department goals over the next five years.

The Department of Parks and Recreation's responsibilities include "developing and maintaining a variety of public parks, open space areas, recreation facilities, and offering leisure

services. The facilities include 13 urban and 9 rural community centers; 68 urban and rural parks, 2 mountain camps, the County fairgrounds, 3 museum sites, 14 public swimming pools and 3 senior centers, in addition to sports and athletic fields. These facilities are in addition to over 50 urban and school site activities and classes.

Resources to support these facilities and activities are generated by the Residential Construction Tax, interest earnings, state and local grants, parks bonds and transfer funds. The Residential Construction Tax is one percent of the costs of building, or \$1000, whichever is lower, and can be allotted only for neighborhood parks (25 acres or less). The development or improvement of parks greater than 25 acres is funded from transfers from the County Capital Projects Fund or from bonds. In addition, the Las Vegas Convention and Visitors Authority pays a recreation grant to help pay part of the \$56 million debt from the Park Bond issued in 1999 - 2000.

Currently there are over \$71 million available for capital improvements or will be initiated over year 2002. Budget expenditures by functions for year ending June 30, 2001 were as follows: salaries and wages \$12,963,687; employee benefits \$4,238,035; services and supplies \$3,648,003, for a total budget (excluding debt services) of \$20,849,725. There are five major divisions in the Department: the Cultural Affairs Division; Recreation Division; Parks Division; and the Parks and Recreation division under the Director's office (Figure 12).

Currently, The Department of Parks and Recreation has a staff size of 241 full-time and 1,161 part-time personnel for the 80 Clark County parks. The number of personnel by division are as follows: Parks and Recreation, 34; Cultural Affairs, 31 FTE's, plus 405 part-time; Recreation, 81 FTE plus 730 part-time; Parks, 95 FTE plus 26 part-time staff (Figure 12).

2.12.2 Parks and Recreation Vulnerabilities and Impacts

The costs to Parks and Recreation are evaluated in two discrete steps as a result of the nuclear waste transportation program. First, additional costs to the department are estimated with respect to preparedness needs in light of a possible Scenario 3 accident. Second, costs were provided with respect to the Department's direct responses to a Scenario 3 event.

Currently, the Department does not have excess capacity to develop detailed plans involving the physical and financial impacts resulting from a nuclear waste shipment campaign. However, park personnel identified that 15 existing parks could be geographically close to HLW transportation routes and may be impacted. New plans related to potential visitor impacts, evacuation, closures, and user rates would be required at a cost of around \$490,000. Of particular importance would be any alterations to the 20-year Parks and Recreation Master Plan and the Department's Strategic Plan that may result because of the proposed HLW transportation routes.

The use of County recreation centers as emergency shelters as a result of an accident will also need to be examined in terms of impacts on the delivery of recreational services and demands on the park system. The preparedness costs include additional staff (one information management person) and 3 to 4 park police, trained for radiological incidents (Table 27). Personnel and equipment costs would amount to almost \$400,000 per year.

Table 27 - Parks and Recreation: Preparedness Costs, Vulnerabilities, and Impacts			
Parks and Recreation	Cost		Vulnerability/Impact
Personnel	\$71,948		Personnel requirements will include 1 information management person.
Personnel	\$143,895 to \$191,860		An additional 3 to 4 park police.
Equipment	\$84,426 to \$112,568		The Department will require an additional 3 to 4 vehicles at \$20,000 per vehicle.
Plans	\$245,975 to \$491,950		There is no capacity to do detailed plans for parks and recreation. There may be approximately 15 parks close to possible transportation routes. Plans will cost between \$200,000

Table 27 - Parks and Recreation: Preparedness Costs, Vulnerabilities, and Impacts			
Parks and Recreation	Cost		Vulnerability/Impact
			and \$400,000 for the Department.
			Emergency plans need to be developed specifically related to nuclear waste accidents that addresses the impacts on recreational facilities and the use of recreation centers as emergency shelters.
TOTAL*, **		\$546,244 to \$868,326	

* Personnel, information development/distribution, and plan development costs are adjusted using a 3% inflation factor through 2007.

** Buildings and other capital costs are adjusted using a 5% inflation factor through 2007.

The possibility of a Scenario 3 event was viewed as having serious and long lasting impacts by park planners. If parks were directly affected by radioactive materials resulting from a Scenario 3 event, the costs to the Department would be significant. The following estimates were offered as assumptions. Direct effects would require up to 12 additional park police for several years for security and safety functions at a cost of \$191,860 per year. The possible closure of a park and recreational center would require substantial replacement costs. For example, the closure of four centers may result in replacement costs of approximately \$8 million each, and a 15-20 acre park at \$300,000/acre. Replacements for directly impacted parks and recreation centers would require substantial capital improvement and acquisition revenues at a time when such revenues would decline for the County. Replacement of only four parks and recreation centers may reach a cost of over \$45,000,000 by 2007 (Table 28).

TABLE 28 - PARKS AND RECREATION: SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS			
Parks and Recreation	Cost		Vulnerability/Impact – Scenario 3
Personnel	\$191,860		A Scenario 3 event would result in 12 additional park police for several years if parks were directly impacted.
Facilities	\$44,573,792 to \$46,073,792		Assumptions made by the department if 4 parks are directly impacted by a Scenario 3 event: <ul style="list-style-type: none"> • 4 centers will be closed at replacement cost of \$8 million each • A center and park average 15-20 acres at a replacement cost of \$300,000/acre. • Overtime public safety costs/center are \$60,000/year.
TOTAL*, **		\$44,765,832 to \$46,265,652	

* Personnel, information development/distribution, and plan development costs are adjusted using a 3% inflation factor through 2007.

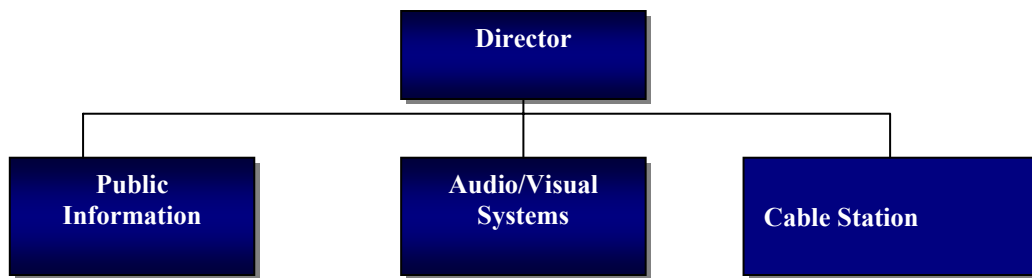
** Facilities/Capital costs are adjusted using a 5% inflation factor through 2007.

2.13 Public Communications

2.13.1 Public Communications Background

Public Communications functions as the primary source for media information, developing public involvement programs and materials, and coordinating communication activities across County agencies. Organizationally, the Public Communication Office is part of the County Manager's Office (Figure 13). The Public Communications Office issues and/or coordinates news releases, arranges news conferences and other media events, and is responsible for coordinating and releasing information to the public during emergencies. In addition, this team is responsible for direct outreach to the community through original television programming, electronic communication, and printed material. Public Communications also serves as a countywide resource in coordinating public awareness campaigns, issue strategies, and special events.

Figure 13 - Public Communication's Organizational Chart



Source: Public Communication

The Public Communications Office is “dedicated to opening the process of government--making it more inclusive and responsive.” The department has 14 personnel including the Director. The organizational chart shows three units reporting to the Director: Public Information, Audio/Visual Systems, and the Cable Station management (Figure 13). As indicated above, the department provides information on County issues to the public and helps facilitate public input to the County.

With respect to the nuclear waste issue, the department has acted as a consultant to the County's Nuclear Waste Division related to public information matters and in a review capacity for various information brochures and flyers. The County newsletter, Sandstone, has covered the Yucca Mountain project.

2.13.2 Public Communication Vulnerabilities and Impacts

With the beginning of nuclear waste shipments, there would be some additional costs as a result of resident's concerns and desire for information in addition to response to inquiries from the national and regional media. Although there will not be a need for additional staff under Scenario 1, resources would be pulled in from other agencies in the County. Public requests for information would result in additional fact sheets, public service announcements, and fliers. There would likely be a special issue of Sandstone, the county's newsletter. A special issue of Sandstone and its distribution would cost approximately \$200,000.

TABLE 29 - PUBLIC COMMUNICATIONS: PREPAREDNESS COSTS, VULNERABILITIES, AND IMPACTS			
Public Communications	Cost		Vulnerability/Impact
Information Distribution	\$245,975		A special issue of Sandstone dedicated to explaining the HLW shipment campaign and other information materials.
Training	\$122,987		Risk communication training for all Clark County public information staff.
TOTAL*, **		\$368,962	

* Personnel, information development/distribution, and plan development costs are adjusted using a 3% inflation factor through 2007.

In addition, Risk Communication training would be required for all Clark county Public Information Officer's that are involved in the multi-agency Public Information task force. Risk communication training would need to be repeated semiannually at a yearly cost of over \$120,000 annually. At 2007 dollars, Scenario 1 costs were projected to be \$368,962 annually.

A Scenario 2 event would result in extensive national media coverage of short duration. No new staff would be needed but personnel from Public Information, Health, and the NWD would likely be designated as spokespeople at the county's Emergency Operations Center. Two special issues of Sandstone would be necessary, as the demand for public information increased. The projected costs for the publication and distribution of the Sandstone and other information to the public were estimated to be over \$400,00. Risk Communication training as discussed under Scenario 1 would be continued and enhanced. Special information bulletins and flyers as well as special cable television productions would be necessary as a result of public concerns over property values and potential health risks. As a result of a Scenario 2 event, expanded media coverage can be expected for at least a two-month period. Costs associated with addressing public concerns, especially, media costs are difficult to predict at this time. Training costs for Risk Communication would likely increase as key public information staff seek more advanced risk communication training.

TABLE 30 - PUBLIC COMMUNICATIONS: SCENARIO 2 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS			
Public Communications	Cost		Vulnerability/Impact
Information Distribution	\$491,950		Additional flyers, mailers, meetings, and meeting materials.
Training	\$122,987		Advanced risk communication training for PIO staff.
TOTAL*, **		\$614,937	

* Personnel, information development/distribution, and plan development costs are adjusted using a 3% inflation factor through 2007.

Under Scenario 3, there would not be any structural or organizational changes to the department. Risk communication training will continue but the department would move to provide oversight and coordination of all media services for the County. Additional staff would be required for a relatively long duration of several years including one senior media advisor and a junior public communications person. The yearly costs associated with these additions are estimated at \$167,878.

TABLE 31 - PUBLIC COMMUNICATIONS: SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS			
Public Communications	Cost		Vulnerability/Impact
Personnel	\$167,878		One Senior Public Information staff person, and one junior staff person
TOTAL*, **		\$167,878	

* Personnel, information development/distribution, and plan development costs are adjusted using a 3% inflation factor through 2007.

2.14 Public Works

2.14.1 Public Works Background

The mission of one of Clark County's largest departments, the Public Works Department, is to "deliver quality public works services, programs, and facilities for a better Clark County community "(Clark County Public Works 2001). To accomplish this mission, the department has established the following divisions and responsibilities (Table 32).

TABLE 32 - SERVICES DEPARTMENT OF PUBLIC WORKS' DIVISIONS AND SERVICES	
Divisions	Services
Administrative and Programs	Provides for the integration of all departmental functions and is primarily responsible for: new business systems development and implementation, budget administration, project accounting, human resources management, payroll processing, strategic planning and policy formulation, computerized information systems, coordination of legislative issues, and customer outreach programming.
Community Development	Coordinates and administers the technical requirements and standards attendant upon zoning, subdivision, and various county permitting actions. Also responsible for the processing and review of private development permit applications and providing real property management services. Conducts construction inspection of off-site improvement projects (within the County right-of-way); performs quality assurance tasks and provides field construction testing/evaluation to assure quality control.
Construction Management	Administers County road and flood control contracts; performs construction inspection of Public Works projects and conducts quality assurance tasks/field construction testing. Coordinates pre-construction conferences; preparation of contractor pay estimates as well as making project acceptance recommendations for completion notice filing.
Design Engineering	Design Engineering - Provides the engineering design necessary for the preparation of detailed plans and specifications for the eventual construction, reconstruction, or repair of County road and flood control improvements. Coordinates activities related to Special Improvement Districts and conducts project-related property acquisition functions.
Environmental and Neighborhood Services	Environmental and Neighborhood Services - Administers both the Clark County newsrack and obstructive use ordinances as well as coordinates departmental responses to citizen inquiries and requests for neighborhood services. Also provides vector control services in unincorporated sections of the county (and in incorporated areas as provided under interlocal contracts).
Maintenance Management	Responsible for the operations, repair, and maintenance of County roadways, curbs, gutters, sidewalks, shoulders, and roadside drainage. Also coordinates the operations, repairs, and maintenance of the County's storm drain and flood control facilities. Administers the pavement preservation and lightweight paving programs. As needed, provides snow removal services.
Surveyor's Office	Performs land surveys as well as calculates and reviews surveying computations for County projects and consultant's plans. Also reviews or prepares legal descriptions, record drawings, plats, maps, mining claims, and other official documents in public records. Maintains the County map of mining claims as well as the County's system of surveying.
Traffic Management	Plan, design, construct, operate, and maintain streetlights as well as the County's traffic control systems. Conducts traffic surveys, studies, and evaluations. Designs countywide traffic control improvements and performs field inspections of their construction and placement. Also responsible for: installing, operating, repairing and maintaining Clark County's traffic signs and pavement markings.

Source: Clark County Public Works 2001

Among the services provided by the estimated 450 employees of these divisions are: “the design, construction, and maintenance of local streets and flood control facilities; traffic and safety management; land surveying; private development permit processing; vector control; and community information programming.” The department is also responsible for overseeing parts of four local ordinances; Title 9 –Public Health and Sanitation; Title 14 – Traffic; Title 16 –

Roads and Highways; and Title 30 – Unified Development Code. In fiscal year 1999 – 2000, Clark County expended approximately \$153.2 million on these Public Work services.

Key among the responsibilities of the Public Works Department is implementation of the Clark County Master Transportation Plan (MTP). The MTP is the outgrowth of a 1980's effort by the Regional Transportation Commission (RTC) to determine what road improvements and services would be needed to keep pace with growing traffic demands into the next century. The RTC is comprised of a group of eight elected officials from each government entity in Clark County. The MTP is funded by a *fair share funding formula* (known locally as Question 10) that was approved by the voters in November 1990, and enacted into state law in January 1991. The *fair share funding formula* provides six revenue sources for funding transportation projects including:

- 1 percent hotel room tax to pay for improvements in the resort corridor district
- \$0.01 per \$1 (of vehicle valuation) Motor Vehicle Privilege Tax to finance beltway projects
- A new residential and development tax (\$500 per single family unit and 50 cents per square foot for commercial construction) used for beltway construction
- 1/4 percent sales tax to support a public mass transit system (Citizen Area Transit)
- 3-cent Jet Aviation Fuel Tax for airport access improvements
- 5-cent Motor Vehicle Fuel Tax to upgrade neighborhood and regional streets

The largest project being funded under the MTP, the Las Vegas Beltway is composed of three connected segments (southern, western and northern) that will eventually form a 53-mile long loop around the Las Vegas Valley. The cost to complete this roadway is estimated at \$1.5 billion. The Las Vegas Beltway is also one of the transportation routes being considered by the

DOE for the proposed shipments of HLW. Clark County also receives a fair share of Nevada Department of Transportation funds that are primarily used for critical improvements to I-15 and U.S.-95.

2.14.2 Public Works Vulnerabilities and Impacts

As noted above, the Public Works Department has responsibility for the construction of the Las Vegas Beltway. This project is unique because it is being constructed by the County “exclusively with local tax dollars” (Clark County Public Works 2001). Historically, major highway construction has been the responsibility of either a federal or a state entity. When the Las Vegas Beltway was initially conceived, the plan was to construct “the 53-mile long beltway in an ultimate full freeway configuration, section by section” by 2020 (Clark County DPW 2001). Subsequently in 1996, because of the rapid growth, the initial plan was reevaluated and an accelerated beltway design and construction plan was conceived, developed, and approved” (Clark County DPW 2001). This plan focuses on building a preliminary roadway system around the entire Valley by the end of 2003. Once this preliminary roadway is in place, future upgrades to a comprehensive freeway standard will be driven by the availability of funds and increased traffic demand (Clark County DPW 2001).

Under the current plan, the Beltway is not being constructed to federal highway standards that are suitable for shipments of HLW. Further, although a preliminary road system will be in place by the end of 2003, the pavement structure for components of this system, i.e., the Summerlin Parkway, is not suitable for heavy-haul vehicles. Other segments of the roadway system are comprised of arterial streets. If DOE intends to use this corridor, as suggested in the DEIS, then significant costs will be incurred to upgrade the entire system to federal highway

standards (Table 33). Earlier studies estimate that the build out costs for completion of the entire Las Vegas Beltway to be \$1.5 billion (Clark County DPW 2001).

TABLE 33 - PUBLIC WORKS: PREPAREDNESS, VULNERABILITIES, AND IMPACTS	
Public Works	Vulnerability/Impact
Capital Costs	The Beltway system is not suitable for nuclear waste shipments and not built to federal highway standards. The pavement structure for the Summerlin Parkway is also not suitable for heavy-haul vehicles. If the Summerlin Parkway were used for heavy haul trucks, the pavement would need to be upgraded.
Transportation	The “Southern Loop” is already carrying substantial traffic (97,000 vehicles/day). Transportation of nuclear waste there with escorts would likely create significant congestion and bottlenecks.
Training	Public works personnel are not trained to deal with hazardous materials spills. The Department will likely call on other agencies in such contingencies.
Subcontracts	The Department will deal with road maintenance and public safety related to flooding, but it is not equipped to deal with radiological incidents. It has no plan for this, nor equipment and training. The Department may rely on private sector contractors (outsourcing) for such a contingency. Such an accident is considered to be “above and beyond” what the department’s workers expect.
Personnel	Other issues include; lack of training, OSHA regulations, union contracts, and the authority for a Beltway response or maintenance in the future.

Further, the “Southern Loop” of the Las Vegas Beltway system is already congested carrying over 97,000 vehicles per day. The addition of slow moving trucks carrying HLW will only aggravate this situation resulting in further congestion and bottlenecks. Alternately, the DOE would need to use I-15, which is already heavily congested, and runs through the center of the urban area placing at risk not only the thousands of Clark County residents who use this route daily, but also the millions of visitors who use the nearby gaming facilities. Clark County has repeatedly indicated that they consider both the Beltway and the I-15 corridors as inappropriate routes for the shipment of HLW.

Representatives of the Department of Public Works indicate that while their agency personnel are equipped to assist the County’s public safety agencies with natural hazards such as floods, they are not trained or equipped to provide support in the event of a HLW accident. Given the low skill level of many of these employees, it is questionable whether they are

appropriate candidates for training to deal with radiological hazards. In addition, given their relatively low pay scale, it is unclear whether they would be willing to accept the risk associated with responding to a HLW incident.

The DPW representatives interviewed indicated that additional research is needed to identify federal and state requirements for worker safety when responding to a HLW incident. In addition, current union contracts would need to be examined in order to identify any limitations that they may restrict DPW personnel from conducting specific work activities. Given these constraints, the DPW representatives suggested that much of the support to public safety agencies that is usually provided by DPW, in the event of a HLW incident would likely need to be subcontracted to a more highly trained workforce. Future studies will need to evaluate the range and magnitude of these potential subcontract costs.

2.15 Recorder's Office

2.15.1 Recorder's Office Background

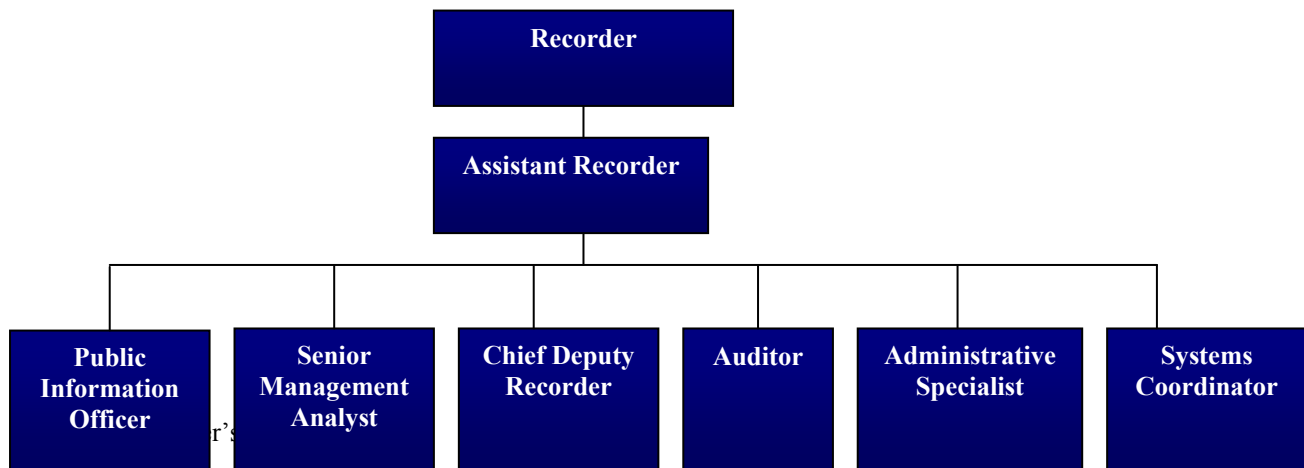
The Strategic Plan of the Recorder's Office (Clark County Recorder's Office, Strategic Plan, September, 15, 2000) provides a mission statement for the Office as follows: "Provide public official records stewardship to ensure the rights and entitlements of the community." The mission is to archive and have access to the official records of the County. These include all rights, settlements, any court decision, and boundaries, road easements, and ownership of all properties. All County records are archived and available on microfilm. Approximately 3000 documents are recorded each day in the County. The Strategic Plan identifies several key goals that have to do with the Office's key service areas—public official records, access services; recording services, and archive services

The identified goals are to:

- Improve access to public official records
- Ensure timely, accurate and fair recording of documents within statutory mandates
- Protect and preserve the public official records

There is one Assistant Recorder under the County recorder and five divisions fall under the Assistant Recorder (Figure 14). They are: Public Information, Management Analysis, Chief Deputy Recorder's Office, Auditor, and Systems Coordinator. Currently, there are 56 FTE staff position in the Recorder's Office. The approved FY 01/02 budget is \$3,227,021. This budget is broken down as follows: Salaries and Wages, \$2,142,789; Benefits, \$707,668; Supplies and Services, \$376,584.

Figure 14 - Recorder's Office Organizational Chart



2.15.2 Recorder's Office Vulnerabilities and Impacts

With the possibility of a transportation accident involving nuclear waste, personnel interviewed in the Recorder's Office suggested the likelihood of out migration, losses to the tourism industry, and a decreased perception of the County as a desirable place to live. Although there may be a slowdown in development, which would reduce the demands in the Office, staff interviewed indicated that this would be offset by increased demands in recordings for liens, loss

of homes, changed ownerships, and property transfers, especially along the beltways. Yearly budgets for the Office are based on the collection of fees in the Recorder's Office. Currently the Office is running at 60 percent capacity. With additional demands for recordings, it will become harder for the office to be manage under the larger workload and additional staff would be required (Table 34). At this point, personnel interviewed were not able to estimate the number of additional staff that would be required when HLW shipments commence. However, they suggested that under a Scenario 2 or 3 event, there would be an immediate need for a 10 percent increase in staff that would drop as the economy slowed. This could result in a temporary increase in personnel costs of almost \$285 thousand Table 35).

TABLE 34 - RECORDER: PREPAREDNESS, VULNERABILITIES, AND IMPACTS	
Recorder	Vulnerability/Impact
Personnel	Under Scenario 1, property transfers would increase, (especially along the Beltway) which would affect the Recorders office.
Personnel	Although there may be a slowdown in development, which would reduce demands in recordings, the loss of homes, property liens, and non-payment of County fees would increase demands on staff within the Recorder's Office.
Revenues	The budget of \$2.5 million/year is based on the collection of fees; with revenue losses and tax liens. It will become difficult for the Office to be sustained under a larger workload. The office is currently running at 60% capacity.

TABLE 35 - RECORDER: SCENARIO 2 AND 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS		
Recorder	Cost	Vulnerability/Impact – Scenario 2
Personnel	\$284,984	Under Scenario 2 and 3, the workload would increase at the beginning (and require a 10% increase in personnel), but then slow down as the economy slows.
TOTAL*, **		\$284,984

* Personnel, information development/distribution, and plan development costs are adjusted using a 3% inflation factor through 2007.

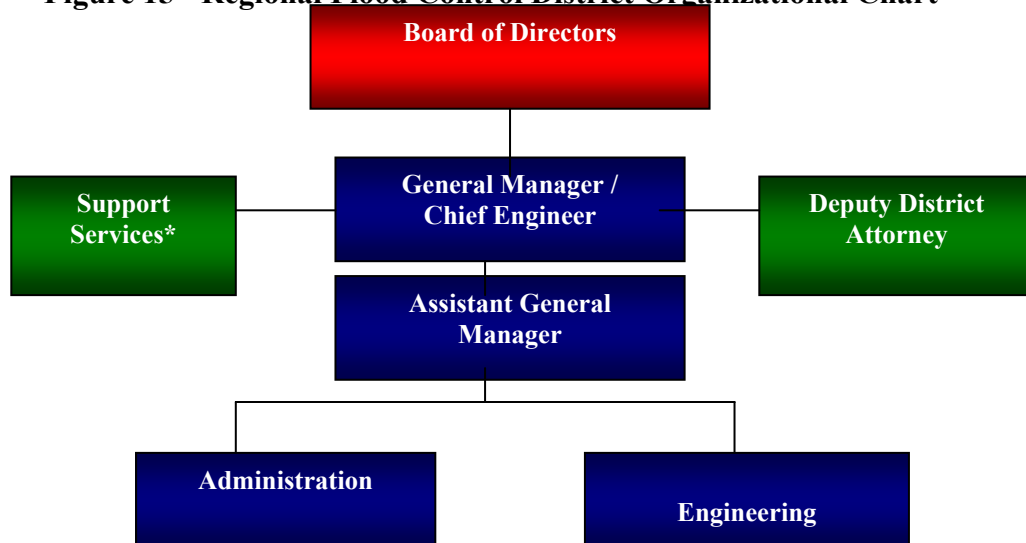
2.16 Regional Flood Control District

2.16.1 Regional Flood Control Background

The Regional Flood Control District was authorized by the State of Nevada in 1985. Its function is to “to develop a coordinated and comprehensive master plan to solve flooding problems, to regulate land use in flood hazard areas, to fund and coordinate the construction of flood control facilities, and to develop and contribute to the funding of a maintenance program for master plan flood control facilities’ (Regional Flood Control 1999 – 2000). In addition, the Regional Flood Control District is responsible for monitoring rainfall and flow data during storms, and providing relevant information to public works and public safety agencies, as well as, providing public education related to flooding. The Regional Flood Control District serves unincorporated Clark County, as well as, the incorporated communities of Boulder City, Henderson, Las Vegas, Mesquite, and North Las Vegas.

Governance of the Regional Flood Control District includes two representatives from Clark County and the City of Las Vegas, and one representative from each of the other incorporated cities within the District’s service area. The Clark County Treasurer serves as treasurer for the Regional Flood Control District Board. Day-to-day operations of the Regional Flood Control District is managed by the General Manager/Chief Engineer, who “is responsible for surveying, investigating, reporting, and estimating flood control problems and for presenting flood control recommendations to the Board” (Regional Flood Control District 2000) (Figure 15). The General Manager/Chief Engineer is supported by an Assistant General Manager, a Public Information Administrator, and two divisions, Administration and Engineering. Additional support is provided by various other Clark County agencies including the Comptroller, District Attorney, General Services, Human Resources, Information Systems, and the Treasurer.

Figure 15 - Regional Flood Control District Organizational Chart



Source: Regional Flood Control District

During the fiscal year ending June 30, 2000, The Regional Flood Control District had revenues of \$60,363,721. The largest source of revenues, approximately \$53 million, came from the Sales and Use Tax. A ¼ of one percent increase in the Sales and Use Tax to fund flood control projects was passed by Clark County voters in 1986. The other significant sources of revenue for FY 2000 were the \$7 million of Transfers from Fund 443, the Capital Improvement Fund. Expenditures for FY 2000 was \$54, 578,517. Most of the expenditures went into the Capital Improvement Fund (45.8%), the Bond Debt Service (36%), and the Facilities Maintenance Fund (11.45). Only 6.8% of the funds were used for Operations, including salaries, benefits, services, supplies, and capital equipment.

2.16.2 Regional Flood Control District Vulnerabilities and Impacts

Because of the nature of the responsibilities of the Regional Flood Control District, the Assistant General Manager indicated that his agency is not likely to be directly impacted by the

DOE's proposed shipment campaign of HLW through Clark County. However, because the groundwater flow in the Valley runs from the northwest towards the southeast into the Las Vegas Wash, the Assistant General Manager noted that any accident that released radioactive material into the groundwater would be extremely difficult to remediate and could contaminate the area's entire groundwater supply (Table 36). At this point, it is impossible to estimate the cost of remediating such an event, but a future study should assess the costs associated with providing an alternate drinking water supply in the event that the area's groundwater supply was contaminated. These costs are likely to be very high and although the probability of the groundwater supply becoming contaminated may be small, the consequence of such an event would be enormous.

TABLE 36 - REGIONAL FLOOD CONTROL VULNERABILITIES AND IMPACTS	
Regional Flood Control	Vulnerability/Impact
Environment	Because of the direction of groundwater flow in the Las Vegas Valley runs from the northwest toward the southeast into the Las Vegas Wash, any accident that results in a release of radioactive material into the groundwater would be extremely difficult to remediated and has the potential to contaminate the areas entire groundwater supply.

2.17 Regional Transportation Commission

2.17.1 Regional Transportation Commission Background

The RTC provides transportation services within Southern Nevada, which includes metropolitan planning; approval and funding of major arterial, and highway construction; and countywide public mass transit. Created in 1965 by the Nevada State Legislation as a regional governmental agency, it was designated as the Metropolitan Planning Organization (MPO) in 1981 for urbanized Clark County. Funding for the RTC comes from a combination of various taxes. In 1991, the Nevada State Legislature passed enabling legislation, which included additional taxes for Regional Street and Highway construction projects and funding for mass transportation services.

As the MPO, the RTC, together with the State develops and maintains regional transportation plans and improvements programs. It acts as the means for cooperative decision-making by elected officials of local governments. (RTC, Budget, and Financial Plan Fiscal Year 2001-02). The RTC is also responsible for the administration of funds for Regional Street and Highway construction and its distribution to various governmental agencies. Lastly, the RTC operates the regional bus system through a contract.

The RTC is organized as follows. The Commission membership is set by State statute and has two members from the County, two from the city council of the largest city, and one member from the city council from each of other incorporated cities. The RTC General Manager is responsible for the operations of three departments- **Administration/Finance**, **MPO**, and **Transit** (Figure 16). An Advisory Committee coordinates the various planning activities and the RTC has a regional utility coordination group which coordinates the construction of infrastructure improvements. Total positions for fiscal year 2001-02 are 196 personnel, which are broken down as follows:

• Administration	40
• Regional Operations	39
• Streets and Highways	7
• Transportation Demand Management	5
• Planning	19.5
• Transit Admin.	15
• Communications	6.5
• Customer Service	64

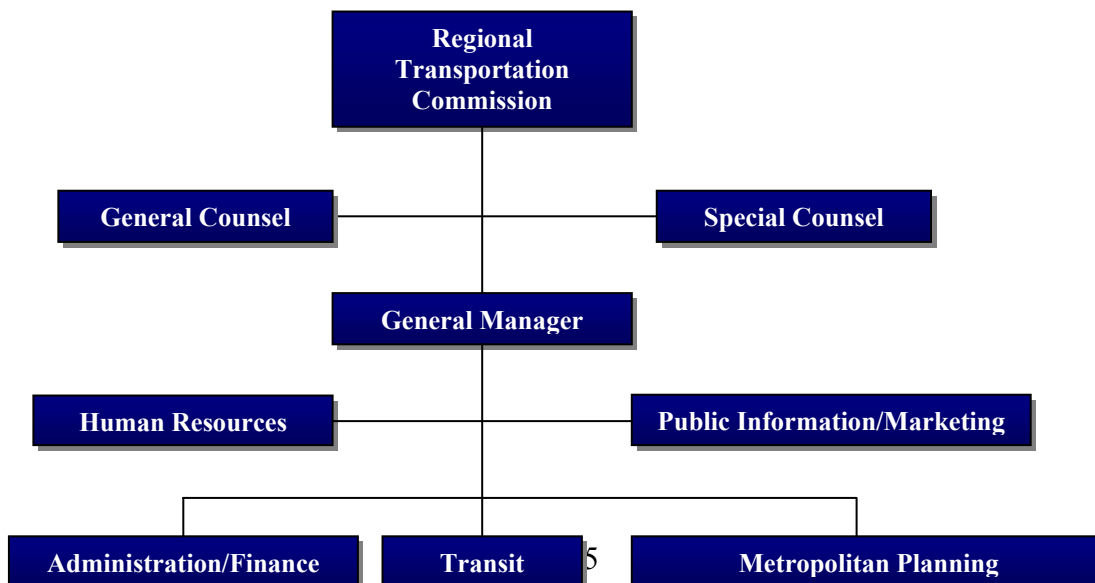
In 1999-2000 a new strategic plan was implemented with the following objectives:

- Implement transportation systems that improve air quality
- Develop fully integrated modal options
- Integrate the system geographically
- Enhance public awareness and support for a regional transportation system

From a budget perspective, the MPO, Administration and Finance, and the Manager's Office are housed in Fund 209. As the MPO for the Las Vegas Urban Planning Area, the RTC is involved and coordinates the transportation planning process. The three divisions; Planning, Engineering and Transportation Demand Management monitors trends, conducts research, evaluates alternatives and addresses alternative technologies. In 2001, the outstanding debt by RTC and Clark County debt for transportation projects was estimated to be \$83,634,574. By 2007-08, it is expected to increase to \$96,194,375. Debt management is a key function of the RTC.

The RTC budget is \$13.9 million representing an increase over 2000-01 of 27 percent, due to expanded planning activities. The Transit Fund budget is \$122 million, a 16 percent increase over the previous year. Capital streets and highway projects are budgeted for \$169.5 million, including \$70 million for the northwest section of the beltway.

Figure 16 - Regional Transportation's Organizational Department



Source: Regional Transportation Department

2.17.2 Regional Transportation Commission Vulnerabilities and Impacts

Table 37 summarizes the estimated cost to the RTC that will result from a nuclear waste transportation program. As a regional planning agency, the RTC will require additional personnel at an annual cost of \$455,658. Route impact assessments involving such issues as pavement, air quality, and land use would be needed at costs upwards of \$2.5 million. Evacuation studies could cost over \$10 million if this corridor was selected.

As discussed in the Public Works section 2.14.2, if the beltway were used for HLW transport, a key cost factor would be the upgrading and completion of the beltway system up to federal highway standards for transporting nuclear waste.

TABLE 37 - REGIONAL TRANSPORTATION COMMISSION: PREPAREDNESS, VULNERABILITIES, AND IMPACTS			
RTC	Cost		Vulnerability/Impact
Personnel	\$455,658		Additional personnel needs were estimated to be: 5 FTE administrative assistants; and three FTE's (transportation modeler, engineer, and planner).
Personnel	NA		RTC views their response to the nuclear waste transportation program in terms of a significant planning effort. The extent of additional planning personnel required would be dependent upon the shipment routes selected.
Studies	\$2,500,000		Impact studies will have to be developed once transportation routes are designated involving issues such as pavement, air quality, and land use changes. (There would entail a minimum of 5 studies at \$500,000).
Studies	\$8 to 10 million		Studies to identify best routes, impact analysis of alternative routes and mitigation.
Plans	NA		Evacuation plans related to transportation will be required
Transportation	NA		Because of the issue of congestion on the beltway system, there may be a need for a "dedicated northwest corridor bypass" that will add a minimum of three lanes in each direction.
Transportation	NA		If the beltway is used for nuclear waste, different pavement structures will need to be designed and constructed. The cost for this would be significant. In such a case, reconstruction of the beltway would have to be accelerated to 2007.
TOTAL*			\$10,955,658 to \$12,955,658

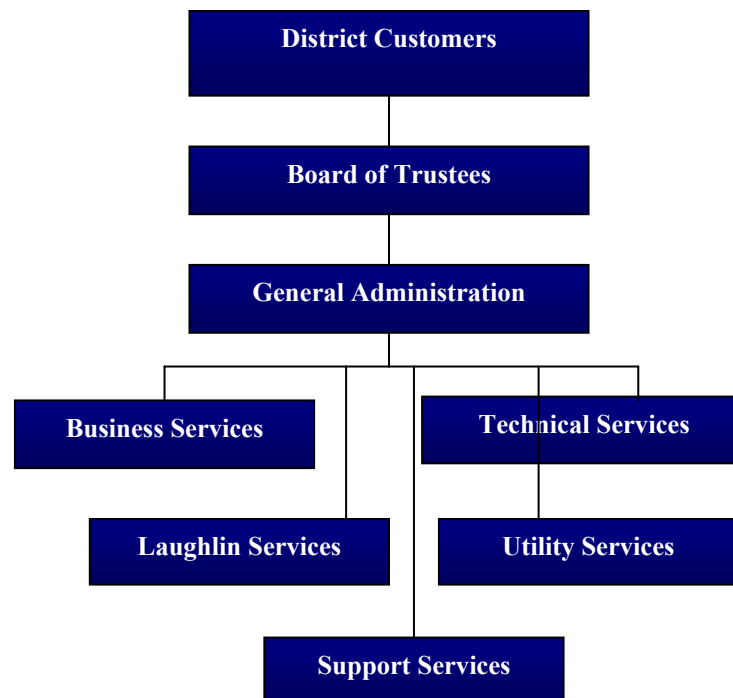
* Personnel, information development/distribution, and plan development are adjusted using a 3% inflation factor.

2.18 Sanitation District

2.18.1 Sanitation District Background

The Clark County Sanitation District was organized as a General Improvement District under the Nevada Revised Statutes in 1954. The District has the following rights: the right to sell bonds, to create assessment districts, the right to levy taxes and has the right of eminent domain. The Clark County Board of Commissioners who has the authority to set rates and charges oversees the Sanitation District (Figure 17).

Figure 17 - Sanitation District's Organizational Chart



Source: Clark County Sanitation District

There are five sections under the Sanitation District's General Administration Department (Figure 17). These are as follows: **Technical Services** (which includes the Laboratory, Pretreatment and Construction Management and Engineering); **Utility Services** (which includes wastewater management operations and the collection system); **Business Services**; **Support Services** (mainly fleet management); and **Laughlin Services**. The FY 02

budget has estimated operating revenues at \$74,514,081. For the District, rates and charges are used to cover operations, maintenance costs, and general expenses, including salaries. Expenses associated with providing services are financed through user charges.

Acquisition, maintenance, and improvements of physical features/facilities for wastewater treatment services are financed from cash revenues, connection fees, or from bond issues. As of June 30, 2001, there were 227 full-time personnel with the District. They are broken down follows: utility services 43.1 percent; support services 6.7 percent; business services 8.8 percent; Laughlin services 10.0 percent; technical services 28.0 percent, and general services 3.3 percent.

Present facilities include sanitary sewer service to “the urban areas in the unincorporated portion of the country, including the resort hotels on the ”Strip.” Sewer service facilities are operated by the County in the towns of Laughlin, Overton, Searchlight and Blue Diamond. Nearly all of the District’s facilities are located in the Las Vegas metropolitan area, and consist of pipelines for collecting wastewater and facilities for their treatment. There are more than 1,700 miles of pipeline within the Las Vegas Valley. The reclaimed water is discharged into the Las Vegas water system after treatment by the District’s Advanced Wastewater Treatment Plant. The reclaimed water ultimately flows back to Lake Mead.

For the FY 2001-02 the District’s vision is to: be environmentally and financially responsible, providing services that exceed requirements and expectations while promoting employee dedication, accountability, and achievement. Under this vision, goals have been established to increase wastewater system demands, to maximize reuse water opportunities, and to operate competitively. (Clark County Sanitation District, Operating Budget, Fiscal Year, 2001-02).

2.18.2 Sanitation District Vulnerabilities and Impacts

Interviews with the District's personnel identified two areas of vulnerabilities. First, concern was expressed that under accident conditions and with release of nuclear materials, these materials may enter the sewer collection system and adversely affect the wastewater treatment process. The District would like to see a study on the risks to its wastewater treatment processes completed. Another concern expressed, is the possible closure of portions of I-15, which may prevent shipments of wastewater solids from reach the District's landfill. The need for alternative disposal sites and routes may be costly.

These two areas of vulnerability will require (Table 38). At this time, the costs for these studies have not been estimated.

TABLE 38 - SANITATION DISTRICT: SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS	
Sanitation District	Vulnerability/Impact – Scenario 3
Environment	A nuclear waste transportation accident along the I-15 corridor may prevent shipments of wastewater solids to the Apex landfill used by the County. Under such a condition, alternative disposal may be costly.
Environment	Under accident conditions, and depending on the amount, radioactive materials may enter the sewer collection system and have an adverse impact on the wastewater treatment process.

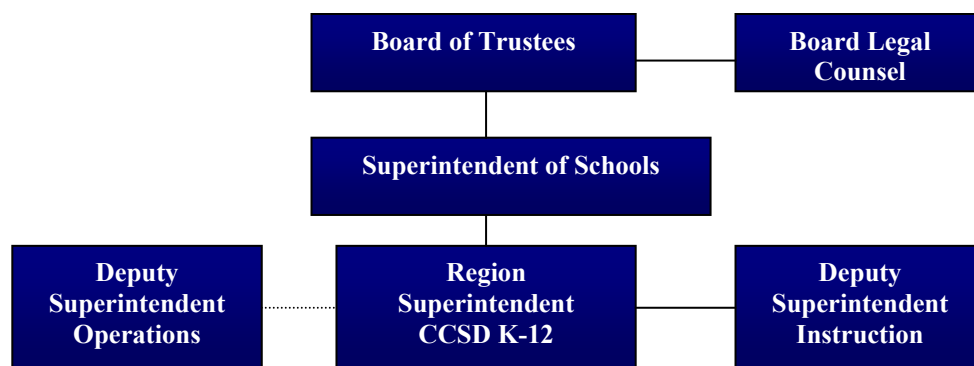
2.19 School District

2.19.1 School District Background

The Clark County School District continues to grow as one of the fastest districts in the country increasing by over six percent per year. In fact, based on a 2001-02 enrollment of 245,600 it is recognized as the sixth largest school district in the country. As a result of this growth rate, a major reorganization was initiated in 2001 that “is designed to provide greater responsiveness, access and accountability to the schools.” (Clark County School District, P.I.). The organization plan divides the District into five regions.

Currently, the Superintendent of Schools reports to the Board of School Trustees. Directly under the Superintendent is the Deputy Superintendent for Operations, five Regional Superintendents, and the Deputy Superintendent for Instruction (Figure 18). Five sections fall under Operations: human resources, general manager, technology, facilities, business, and finance. The two Deputy Superintendents are directly linked to the five school district regions. Administratively, there are six departments under the Superintendent of Schools including General Council, School Police Services, Community and Government Relations, Negotiations, Diversity and Research and Development.

Figure 18 - School District's Organizational Chart



Source: Clark County School District

In the 2001-02 school year, the total revenue for all funds for the School District is forecast at \$2,511,114,456. Total expenditure appropriations amount to \$2,207,801 with ending balances of \$303,313,083. Ending balances reflect balances in the Capital Projects Fund from bond proceeds. The General Fund is the largest fund and includes revenues to provide “the basic instruction of students and the day-to-day operations.” The General Fund constitutes 52.87 percent of total expenditures. Debt services account for 9.83 percent of expenditures and capital projects 28.16 percent.

The General Fund used for instruction and operations of the school system are supported by state revenues, property taxes, local school support taxes, and other taxes, such as the motor vehicle/franchise tax. The change in expenditure growth from the previous year is accounted for by the continuation of current programs and enrollment growth. The District's challenge is to balance their mandate to improve educational services in light of rapid enrollment growth and limited revenues per student.

Enrollment in the School District is projected to reach over 312,000 students by 2005, representing an increase of 27.2 percent from 2001. Although the 1994 and 1996 capital improvements programs are nearing completion, in 1998 a 10-year school construction program began at a cost of \$678,808,102. The debt service fund (expenditures) includes budgeted revenues of \$408, 588,822, of which local tax revenue is important. Currently, this is based on a tax rate of 55.34 cents/\$100 of assessed valuation of property in Clark County. The current tax rate is viewed as sufficient to retire the pre-existing debt (1994, 1996) since bond sales are based on growth in assessed valuation as well as enrollment increases. In 1996, debt service required a property tax rate increase of 10 to 99 cents/\$100 of assessed value, but County voters froze this rate for 10 years in 1998. This freeze will permit the District to issue general obligation bonds but will still be dependent on the room tax and real property transfer taxes. The new construction program envisions at a minimum 88 new schools at a cost of \$250 million and land acquisition for future sites at a cost of \$150 million. (Clark County School District, Fiscal year 2001-02 Budget Overview, 2001).

2.19.2 School District Vulnerabilities and Impacts

Four areas of vulnerability to Clark County's School District have been noted in the interviews with key District personnel (Table 39). In 2007, when the transportations of nuclear

waste are proposed to commence, approximately 120,000 students will be transported to County schools. The routes taken by students will likely coincide with nuclear waste routes creating serious congestion, health risks to school-aged children and parental fears. In addition, the proposed location of school bus terminals and maintenance yards near the Northern Beltway may become vulnerable under accident conditions. Plans for alternative routings may have to be developed.

School District personnel have also expressed concern over current and future plans to purchase school property near potential shipment routes (Table 39). Because of the closeness of these schools to nuclear waste routes and the possible health risks posed to children, the replacement of these properties will place a substantial burden on the District's budget and bond indebtedness. The District's budget is based on projected student demands, especially along the new beltway planned developments. Nuclear waste shipments are known to alter development patterns from residential to commercial/industrial. It is likely that development patterns will change as a result of nuclear shipments, resulting in lowered demand for schools in areas designated for new schools. The costs for such changes and purchases of new school properties cannot be made at this time. A detailed plan and associated costs of any changes that may be required would necessary if the DOE proceeds with the HLW shipment campaign. Such studies may cost well over \$1 million.

A third issue is the possible effect of making it more difficult to recruit quality teachers, a major goal of the District (Table 39). Fear of nuclear waste related accidents, may result in greater difficulties in the recruitment of new teachers or greater costs to the School District.

The District currently has a \$4 billion building program for development based on projections of future growth. An economic downturn affecting property values and growth-based

revenues will have serious consequences on District revenues and indebtedness. At this point, estimates of revenue shortfalls cannot be projected, but detailed financial impact analyses are warranted.

Table 39 identifies three specific costs related to preparedness. First, because of the District's policy of "shelter in place", which includes quarterly exercises, staff at each site will require training, education and new hires at a cost of up to \$863,371. Second, the current police staff numbered at 129 police will require "Rad" training and equipment. Such costs are estimated to be \$356, 971. The need to update plans and exercises for a possible radiological incident would cost the district approximately \$60,000 per year. By 2007, that figure could reach \$73,792.

The interviews with key School District officials suggest that several key studies are required. First, a transportation plan needs to be completed on impacts to the transportation of school-aged students and possible alternative routing. In addition, a detailed financial study will be essential to examine the needs for additional schools and land as potential replacements for properties located near the potential nuclear waste shipment routes. Moreover, the revenue impacts to the District will need to be examined as a consequence of possible changes to development patterns and economic downturns under a Scenario 3 event.

TABLE 39 - SCHOOL DISTRICT: PREPAREDNESS, VULNERABILITIES, AND IMPACTS			
School District	Cost		Vulnerability/Impact
Personnel	\$431,686 to \$863,371		Because of the District's policy of "shelter in place," including quarterly exercises, staff at each site will require training and education, in addition to 6 to 12 new personnel.
Personnel	NA		Transportation of nuclear waste through Clark County may make it more difficult to recruit teachers.
Personnel	NA		Because of increased travel time to schools, the school day may be extended. Extension of 15 minutes in salaries may result in significant cost increases.
Training	\$356,971		Currently there are 129 school police personnel who will have to act as first responders to an accident affecting a

TABLE 39 - SCHOOL DISTRICT: PREPAREDNESS, VULNERABILITIES, AND IMPACTS			
School District	Cost		Vulnerability/Impact
			school. These personnel will require “Rad 1” training, and equipment.
Plan	\$73,792		Plans and exercises for a radiological incident may cost the District \$60,000/year.
Studies	\$1,000,000		Studies on the impacts to schools and finances may cost over \$1.0 million.
Transportation	NA		Currently 90,000 school-aged children are transported to County schools; by 2007, that number will reach 120,000 students. Transport of nuclear waste may result in congestion, risk of accidents, and fear by parents related to transporting their children. Plans for alternative routing may be required.
Economic	NA		Currently the County has purchased land for school construction within a quarter mile of possible routes for nuclear waste transport (Beltways). Replacement of schools and purchased land could result in significant costs to the School District.
Revenues	NA		A downturn in property values will seriously impact revenues will seriously impact revenues for the School District. The District currently has a \$4 billion program based on projections of future growth to 2028. If an economic downturn results from nuclear waste accidents and growth rates decline, then the District will be left with a serious financial debt.
TOTAL*			\$1,862,449 to \$2,294,134

* Personnel, training, and plan development are adjusted using a 3% inflation factor.

2.20 Social Services

2.20.1 Social Services Background

The Social Service Department’s 169 employees offer a variety of services targeted toward at-risk Clark County residents who are ineligible for other state, federal or local programs. These services are made available through an individual and family assessment process with the goal of enabling individuals who receive services becoming self-sufficient. These services are provided within established guidelines for ensuring that the “County meets its health, welfare and community responsibilities as set forth in the Nevada Revised Statutes and County Ordinances” and the Board of County Commissioners (Clark County Web Site November 11, 2001). The statutes and ordinances require Social Services to “provide financial

and medical assistance, protective services for seniors, regulation of child care facilities and alternative dispute resolution services” (Clark County Web Site November 11, 2001). It is the mission of Social Services to provide progressive services and programs efficiently and in a manner that supports “ a healthy, safe community and promotes self-sufficiency for Clark County residents” (Social Service Fast Facts 2001). A brief description of some of the key services provided by Social Services employees follows (Social Service Fast Facts 2001).

Direct Assistance Services including transportation assistance for local residents to acquire medical services and for clients to travel out of Clark County to their place of residences, as well as, burials and cremations.

The **General Assistance/ Temporary Employment Program** offers financial and medical assistance while providing clients with work experience, and training clients on appropriate work habits. Social Services provides **Medical Assistance** including inpatient and outpatient services, institutional care, adult day care, pharmaceutical services, and health care related transportation for low-income residents who are not eligible for other federal, state, or private programs.

Alternative Health Care Program provides temporary health aides to assist low and moderate-income Clark County residents who have been released from hospitals and long-term care facilities recuperate and return to self-sufficiency. Social Services also provides **Long Term Care Placement Services** to nursing homes and adult group care facilities for eligible clients who because of medical conditions are unable to live independently. Social Services also provides crisis and emergency support to senior citizens who are victims of abuse, neglect, or other mistreatment through the **Senior Citizen Protective Services**.

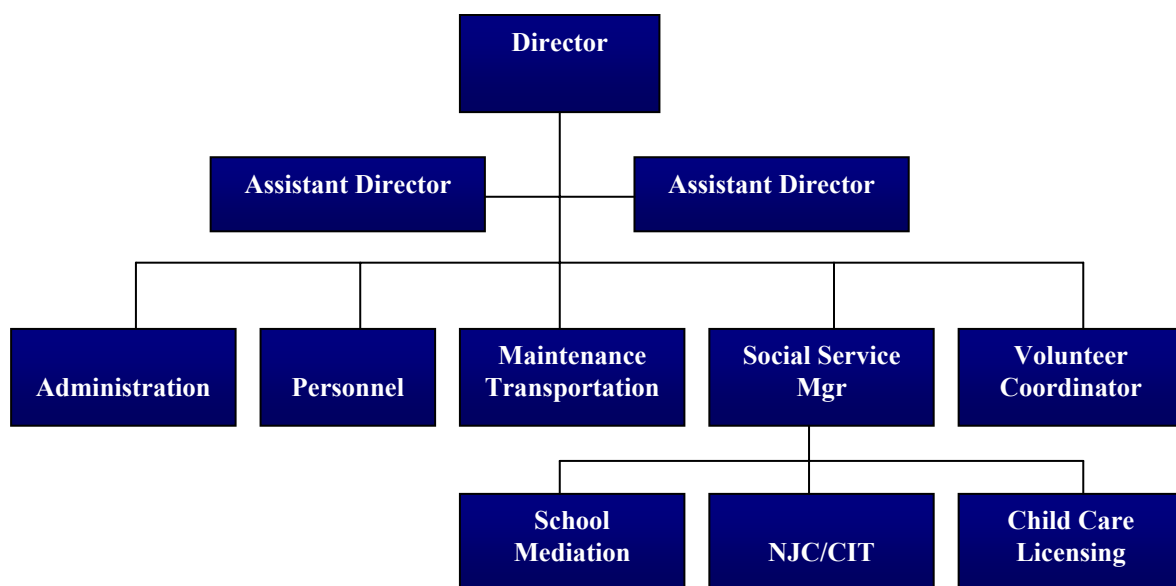
Other services are geared toward children such as the **School Peer Mediation Program** and the **Culture of Peace Program**. The former provides training in alternative dispute resolution for elementary, middle, and high school students, while the later provides outreach and training to at-risk youth. The agency also conducts the **Positive Parenting Program** for adolescents who are pregnant or raising children.

In addition, Social Service's **Child Care Licensing Program** is responsible for inspecting and licensing facilities in unincorporated Clark County and investigating complaints against childcare facilities in unincorporated Clark County. This program also provides resource materials to childcare facilities.

Finally, Social Services also supervises a number of out reach services and facilities from their Main Office, as well as, from other Valley centers and outlying areas within the County including Mesquite, Overton, Searchlight, and Laughlin.

In order to deliver these services efficiently, the Department of Social Services is organized as described in Figure 19.

Figure 19 - Social Services Organizational Chart



Source: Clark County Organizational Charts 2000

2.20.2 Social Services Vulnerabilities and Impacts

Social Service personnel noted that two of their social workers have had health and safety training and that their agency plays an active role in the event of an emergency or crisis event (Table 40). These services include counseling support, as well as, authorization of burials and cremation. In addition, the Director noted that they are the only agency authorized to make purchases without prior authorization from the Board of County Commissioners. Thus, the Social Services Department is an important stakeholder in the Counties effort to prepare for a shipment campaign of HLW.

From prior experience handling emergency events, the Director of Social Services pointed out the need to equip social workers with cell phones, laptops, and two way radios, so that they can communicate from multiple sites if needed to respond to an event. Further, staff indicated that there is a need to develop an identification system for Clark County employees, so that emergency responders can direct appropriately trained and authorized employees into areas where their services are needed in the case of a HLW accident.

The 65 social workers on staff at Social Services will need to receive “Rad” training and to participate in regular training exercises so that they are prepared to fulfill their appropriate responsibilities safely if a HLW shipment incident occurred (Table 40).

TABLE 40 - SOCIAL SERVICES: PREPAREDNESS, VULNERABILITIES, AND IMPACTS			
Social Services	Cost		Vulnerability/Impact
Personnel	NA		An identification system will need to be develop so that trained social workers can get to appropriate field sites to provide services.
Training	\$119,913		65 Social Workers will require Radiation health and safety training and annual recertification.
Plans	NA		Social services will need to be incorporated into the County Emergency Response Plan and exercises will need to be conducted so that all social service employees are trained to carry out their responsibilities in the event of an incident.
Equipment	NA		Social Service will require additional hardware including laptops, two way radios, battery operated televisions, cell phones, so that they can communicate and provide support on site and from multiple locations including hospitals and the coroners office as needed.
TOTAL*		\$119,913	

* Personnel, training, and plan development are adjusted using a 3% inflation factor.

In the event of a HLW shipment incident, some Social Service employees may be unable or unwilling to report to work, until they are assured that conditions are safe (Table 41). This will increase the workload for the remaining staff and will reduce the level of service delivery, as personnel do whatever they can to provide support at various community facilities across the County.

In the period after a HLW incident, the Social Service Director expects a significant number of employees would choose to leave Clark County and that recruiting qualified replacements would be difficult, as Clark County became a less attractive place to work and to live (Table 41). This will lead to deterioration in services to clients who because of their at-risk status are least likely to be able to relocate. Thus, the number of people seeking services are likely to increase, while the number of personnel available to provide services will likely decrease. Replacement employees would require “Rad” training. Stress related health problems among both employees and clients would likely increase after a HLW shipment incident taxing the available resources.

TABLE 41 - SOCIAL SERVICES: SCENARIO 2 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS			
Social Services	Cost		Vulnerability/Impact
Personnel	NA		A significant number of social service employees may be unable or unwilling to report to work in the case of a nuclear waste accident until they are assured that conditions are safe.
Personnel	NA		Personnel will be taxed as limited resources are stretched to provide support at community facilities across Clark County.
Personnel	NA		A significant number of social service employees are likely to leave government service and migrate from the area in the event of a Scenario 2 event. Turnover will reduce the quality of services to clients and the recruitment of qualified replacement workers is likely to be more difficult subsequent to such an event.
Personnel/Health	NA		Social Service personnel and clients are likely to report increased stress related health problems.
Training	NA		New workers that result from turnover will need to receive “Rad” training.

* Personnel, training, and plan development are adjusted using a 3% inflation factor.

During the immediate period following a Scenario 3 level HLW accident, a significant number of employees would likely be unable or unwilling to report to work (Table 42). Those personnel who were willing and able to reach their work sites would be taxed as they try to provide support in community centers, hospitals, and in the coroner’s office.

These employees would require a wide range of support services, including cots, showers, food, water, and other amenities so that they could remain on the job 24/7. Experience handling prior emergency events has demonstrated that social workers are in high demand throughout the period immediately following an event until the community is assured all is safe. As a result of a Scenario 3 event, a large number of employees would move out of Clark County and replacements would be difficult to recruit.

TABLE 42 - SOCIAL SERVICES: SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS			
Social Services	Cost		Vulnerability/Impact
Personnel	NA		A significant number of social service employees may be unable or unwilling to report to work in the case of a nuclear waste accident until they are assured that conditions are safe.
Personnel	NA		Personnel will be taxed as limited resources are stretched to provide counseling support at hospitals, the coroner’s office, and at facilities across the community.
Personnel	NA		Facilities and other support services including showers, cots, food, water, stoves, refrigerators, medical supplies, etc. will

TABLE 42 - SOCIAL SERVICES: SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS			
Social Services	Cost		Vulnerability/Impact
			need to be available for social services who will be working 24/7 during the immediate time period surrounding a HLW transport event.
Personnel	NA		An even larger number of employees would likely leave government service and migrate from the area in the event of a Scenario 3 event. Turnover will further reduce the quality of services to clients and the recruitment of qualified replacement workers would be difficult.
Health	NA		Stress will contribute to increased health related services for clients and employees.
Health/Economic	\$61,493,693		The annual Clark County Medical Assistance budget of approximately \$50 million would likely be exhausted within a few days as clients seek medical attention for stress related illnesses in addition to those that might be directly associated with an HLW incident.
Economic	NA		Since Social Services is the only agency authorized to expend funds in an emergency without prior authorization by the Board of Commissioners, agency personnel are likely to be overwhelmed with requests for emergency supplies from other Clark County agencies.
TOTAL*		\$61,493,693	

* Personnel, training, and plan development are adjusted using a 3% inflation factor.

In the case of a Scenario 3 event, the Medical Assistance resources would likely be exhausted within a few days. Longer term, stress related traumas and other illness would rise among those clients and employees who remain in the area. Finally, Social Services would likely be sought out by other County agencies needing to acquire emergency response equipment and services, since they are the only agency authorized to write checks during an emergency without prior approval of the Board of Commissioners. This would further tax an agency already stretched to its limits.

2.21 Treasurer

2.21.1 Treasurer's Office Background

According to the Clark County Treasurer Office's Strategic Plan (Executive Summary), the mission of the Office "is to provide fiscal stewardship for County collected taxes and

revenue in a progressive, service – oriented manner.” Four principal service areas constitute the responsibilities of the Treasurer. These are:

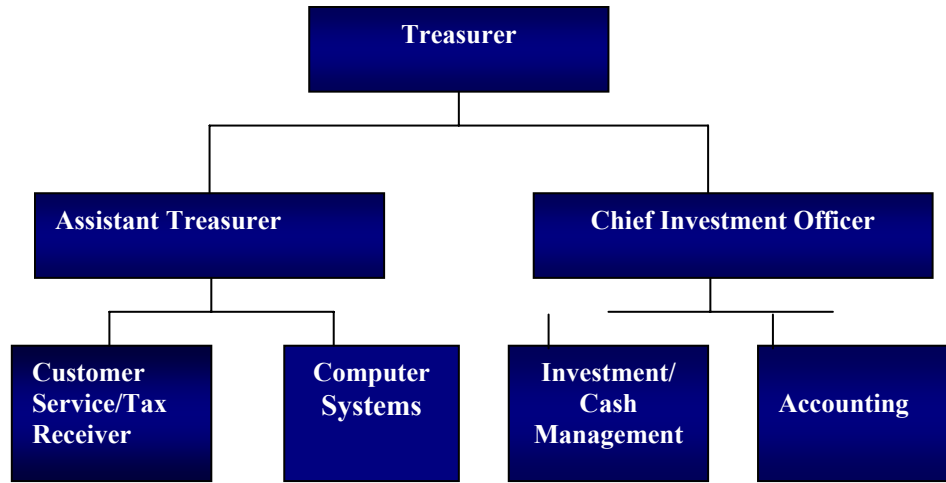
- Billing, collection, record keeping and apportionment of real property taxes
- Collection and record keeping of other county revenues
- Check processing and disbursement of county funds
- Investment of available County monies

The Treasurer’s Office estimates that they expended approximately \$2.4 million for the period July 1, 2000 through June 30, 2001. Approximately \$1.84 million was for salaries and benefits, while approximately \$570 thousand of the remaining paid for services and supplies.

In August 2001, the number of personnel in the Treasurer’s Office was estimated to be 45 persons. The organizational chart of the treasurer’s office shows one Executive Assistant under the Treasurer (Figure 20). Two key divisions are the **Assistant Treasurer** (which handles customer services, tax receivables, and the computer systems), and the **Chief Investment Officer** (which handles the county’s investment and accounting systems). Further, the Customer Services/ Tax Receiver division includes activities that include deeded properties, Delinquent Tax Collections, Mortgages, Bankruptcy, and Financial File Maintenance. The estimated budget for year ending June 30,2001 totaled \$7,401,983. The final approved budget for year ending June 30, 2002 is \$8,156, 683.

In addition to its responsibilities for collecting real property taxes on behalf of local governments, providing oversight of non property taxes, and investing for the County, the Office also is involved in Special Assessments. In 2002, the expected budget breakdown is as follows: salaries and wages, \$1,519, 814; employee benefits, \$493,222; services and supplies, \$584,617; and capital outlay, \$2,597, 653.

Figure 20 - Treasurer's Office Organizational Chart



Source: Treasurer's Office

2.21.2 Treasurer's Office Vulnerabilities and Impacts

Interviews with personnel in the Treasurer's Office indicated that under Scenario 1, impacts on property values would adversely affect the County's revenue stream (Table 43). This could result in possible cutbacks in all governmental agencies and affect operations of the Treasurer's Office. However, the magnitude of such effects would be a function of the size of the property value declines and the duration of such impacts. If the level of decline in the revenue stream is small, the County government could likely mitigate these impacts. However, a particular concern expressed by staff interviewed was the possibility that a nuclear waste shipment program through Clark County having property value diminution of a magnitude that could result in a downgrade of the county's debt rating and impact the costs of borrowing monies for County services. If HLW shipments affect sales taxes then the ripple effects through the local economy could be large. In addition, if revenues do fall, personnel envision a hiring freeze in the Office.

TABLE 43 - TREASURER: PREPAREDNESS, VULNERABILITIES, AND IMPACTS	
Treasurer	Vulnerability/Impact
Revenue	Under Scenario 1, losses in property values may impact the revenue stream to County government and result in possible cutbacks.
Economic	Nuclear waste program could downgrade the County's debt rating.

A Scenario 3 HLW accident would likely result in foreclosures. The County has a responsibility to sell the deeds from foreclosures. The Treasurer's Office indicated that it would likely need 3 additional staff to handle these foreclosures (Table 44). The fiscal cost of this would be approximately \$288 thousand per year.

TABLE 44 - TREASURER: SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS			
Treasurer	Cost		Vulnerability/Impact – Scenario 3
Personnel	\$287,790		Scenario 3 will result in long-term problem for County revenue. It is likely that foreclosures will increase. The office may need 3 full-time additional staff to handle the collection process.
TOTAL*		\$287,790	

3.0 SUMMARY AND DISCUSSION OF IMPACTS

3.1 Preparedness Impacts

Among the 21 agencies interviewed for this report, only three indicated that they are unlikely to incur impacts as a result of needing to prepare for the DOE's proposed construction of the Yucca Mountain Project and its related shipment campaign. Among the eighteen other agencies, extensive lists of impacts were identified that were likely to occur as a result of their need to prepare for the HLW shipment campaign. Approximately half of these agencies were able to identify at least to a limited extent, the magnitude of potential fiscal impacts to their agency. The nature of the impacts can be grouped into the following categories:

- Personnel
- Training, Planning, and Public Outreach

- County Expenditures and Revenues
- Public and Environmental Health.

3.1.1 Preparedness: Personnel Impacts

Thirteen agencies indicated that they would experience personnel impacts just from their need to prepare for the DOE's proposed HLW shipment campaign. Among the eight agencies that estimated the fiscal impacts in the area of personnel, the largest impact was estimated by the **Department of Aviation**, which indicated that it would require 60 bus drivers and forty buses to be maintained for evacuation purposes if the DOE proceeds with the HLW shipments. The staff at the **Department of Aviation** indicated that the airports current evacuation plan calls for the use of public buses and school buses and that if a nuclear waste incident were to occur, it would be unlikely that these buses would be available, since the School District would need to prioritize transporting students instead of airport passengers and staff. The personnel costs associated with hiring these drivers would be over \$3.1 million (Table 45).

The **NWD** estimated that they would need over \$880,000 to maintain oversight staff through the Site Recommendation phase. This includes the addition of a regulatory analyst and a GIS technician (Table 45). In addition, the **School District** indicated that they would need over \$860,000 to maintain their program of "shelter in place", if the DOE proceeds with the HLW shipments (Table 45). The **Regional Transportation Commission** has identified the need a transportation modeler, engineer, and planner as well as support staff if the DOE proceeds.

TABLE 45 - SUMMARY PREPAREDNESS COSTS FOR CLARK COUNTY NON-PUBLIC SAFETY AGENCIES				
Agency	Personnel*	Equipment and Capital Costs**	Training and Plans*	Fiscal Impacts
Administrative Services			\$184,481	\$184,481
Aviation	\$3,137,924	\$9,849,703	\$1,506,596	\$14,494,223
Comprehensive Planning	\$882,058		\$2,248,560	\$3,130,618
District Attorney	\$139,406			\$139,406
General Services	\$143,896			\$143,896
Health District	\$383,721	\$3,000,000	\$1,048,083	\$4,431,804
Parks and Recreation	\$263,808	\$112,568	\$491,950	\$868,326
Public Communications			\$368,962	\$368,962
Regional Transportation Commission***	\$455,658		\$12,500,000	\$12,955,658
School District	\$863,371		\$1,430,763	\$2,294,134
Social Services			\$119,913	\$119,913
TOTALS*, **	\$6,269,842	\$12,962,271	\$19,899,308	\$39,131,421
CUMULATIVE TOTALS 2007 - 2031	\$228,593,827		\$122,669,481	\$351,263,108

* Personnel, training, information development/distribution, and plan development costs are adjusted using a 3% inflation factor through 2007.

** Equipment, Facilities/Capital costs are adjusted using 5% inflation factor through 2007.

The **Health District** noted that they would need an additional four staff to conduct the extensive education and public information program that will be needed to inform Clark County residents about the nature and risk associated with HLW shipments (Table 45). While the **Department of Parks and Recreation** has indicated that, they would need four additional police officers and an information management specialist.

General Services will need additional staff to process contracts and manage purchase and lease agreements from other County agencies affected by the HLW shipment campaign and the **District Attorney's** office will need to provide support for the increased litigation that is expected, particularly, along the northern Beltway if that route is selected for the HLW shipment campaign (Table 45).

Other agencies, such as the **Assessors Office**, the **Clerk's Office**, **Finance**, and the **Recorder**, all indicated that they would also have personnel impacts, although at this time they felt, that they did not have sufficient information to quantify the magnitude of these impacts.

Among those agencies who did make a first estimation of impacts, the personnel needs to prepare for the commencement of the program was almost **\$6.27 million** (Table 45). When these personnel costs are forecast out over the 24 year life-cycle of the shipment campaign that was indicated in the DEIS, the fiscal cost to Clark County reaches almost **\$229 million**.

3.1.2 Preparedness: Training, Planning, and Public Outreach Impacts

The largest category of fiscal impact for the non-public safety agencies is in the area of training and plan development. The **RTC** indicated that that they will need upwards of \$12.5 million to conduct impact analysis of the alternative routes , as well as, to conduct impact studies including pavement, air quality, and land use studies once the DOE has selected the transportation routes that they would use for the HLW shipments (Table 45).

The **NWD** will likely need upwards of \$2.25 million a year through the site characterization phase in order to perform oversight studies and detailed fiscal impact analysis; develop a monitoring program; and carry out regulatory and policy analysis. If the DOE proceeds with its shipment campaign, Clark County will need to continue to provide monitoring of key indicators in order to identify impacts and to provide policy support as Clark County decision makers examine mitigation alternatives (Table 45). The **Department of Comprehensive Planning**, as well as, the **Assessor's Office**, **Department of Parks and Recreation**, **Department of Social Services** and the **School District** all commented on the impacts the HLW shipment campaign will have on the planning process. They all noted that current planning activities are largely driven by accessibility. Thus, facilities such as hospitals, intermediate care facilities, child and adult daycare, schools, parks, and other recreational facilities are located in areas, which are easily accessible to highways. If the HLW shipment

campaign proceeds, the County will likely have to rethink its entire approach to planning to incorporate the additional risk factor associated with HLW transport.

Aviation noted that they would need to make additions to their emergency response plan and would need to want a detailed risk assessment in order to develop a new evacuation plan (Table 45). The current evacuation plan calls for utilizing school buses to evacuate the airport. In the event of a HLW accident, it is unlikely that the School District would make these buses available, needing instead to provide for the safe transport of their students. The costs for these studies were forecast at over \$675,000. The Director of Aviation also noted “Rad 1” training will be needed for the approximately 300-security and traffic control personnel at the airport. This will result in additional costs of \$830,000 per year throughout the duration of the shipment campaign.

The **Department of Parks and Recreation** identified the need to conducted detailed analysis of current and future park and recreation facilities to determine potential visitor impacts, as well as, evacuation and closure strategies (Table 45). These studies were forecast to cost upwards of \$490,000.

The **School District** indicates that they will require approximately \$1 million in order to conduct a study detailing the impacts to the school system and to their finances that will result if the DOE proceeds with the HLW shipment campaign (Table 45). In addition, they believe that training costs and annual training exercises will result in another \$430,000 in expenses for the District. The **Department of Social Services** also indicated that their 65 social workers would also need “Rad 1” training at a cost of almost \$120,000 per year.

The **Neighborhood Services Division** within **Administrative Services** and **Public Communications** also noted the need for on going public outreach activities, including outreach

through the Town Advisory Boards; additional copies of *Sandstone*, and other appropriate education and outreach activities in order to address residents' concerns about the shipment campaign. The **Public Communications** staff also noted that all Clark County public information personnel would need risk communication training on an annual basis so that they would be prepared to communicate effectively with the public in case of a HLW incident. The additional public information and risk communication costs were forecast at over \$550,000 annually throughout the duration of the shipment campaign (Table 45). These costs are in addition to the four personnel identified by the **Health Department** as needed to provide information and education about the health risks associated with the shipment campaign.

Among the nine agencies that were able to provide first cut cost estimations for **training, planning, and public outreach**, the fiscal impacts just to prepare for commencement of the program is almost **\$20 million** (Table 45). Over the 24 lifecycle of the shipment campaign discussed in the DEIS, these additional costs to Clark County will grow to almost **\$123 million**.

3.1.3 Preparedness: Clark County Expenditures and Revenues

The **Department of Aviation** indicated that in order to develop an effective evacuation plan for the airport to respond to a HLW accident event, if it occurred in proximity to the airport, would require the acquisition of 40 busses at a cost of over \$2.8 million (Table 45). As discussed in Section 3.1, currently the Department is dependent on the School District to supply buses for an airport evacuation. This would not be a viable alternative in the event of a HLW incident. The **Department of Aviation** also indicated that they would need 50 early warning monitoring instruments in order to protect the airport if the DOE proceeds with the HLW shipment campaign along I-15 adjacent to the airport. The cost for these monitors would be approximately \$7 million.

The **Health District** indicated that they would need a computer system for environmental health inspection data and enhancements to the EMS communication system currently being deployed at costs of upwards of \$3 million (Table 45).

The **Department of Parks and Recreation** noted that they would need 4 vehicles for the additional Parks Police that will be required at a cost of approximately \$113,000 (Table 45).

The **Department of Finance** noted that Clark County pays for additional services through the additional funds that are generated from growth in the local economy. Based on current growth rates, the Director of Finance indicated that it would take 50 years for the County to be able to provide the additional \$275 million that was estimated in earlier studies as needed to prepare Clark County public safety agencies for the HLW shipment campaign.

The **Department of Comprehensive Planning** pointed out that the County would need to determine whether insurance rates would go up on County facilities and for employee health insurance because of the DOE's proposed HLW shipment campaign. They also noted that there could be an increase in residential property insurance rates that would make living in the County less attractive.

Many of the agencies also noted there is a direct link between revenues and the level of County services that can be provided. If the HLW shipment campaign results in a reduction in revenues from property value diminution and stigma related reductions in visitor generated taxed then employees would need to be reduced and the quality of County services will subsequently decline. The **Treasurer** also noted that the debt rating for the County might suffer, leading to an increase in the cost of capital.

3.1.4 Preparedness: Clark County Public and Environmental Health

The **Department of Comprehensive Planning** suggested that the **Health District** might need to test all school children to establish a baseline for monitoring health impacts. They also noted that the SIP might need to be adjusted to account for air quality issues associated with the HLW shipments.

3.2 Scenario 2 Additional Impacts

3.2.1 Scenario 2: Additional Personnel Impacts

While many of the agencies interviewed indicated that they would experience personnel impacts from a Scenario 2 HLW shipment event, only **General Services** and the **Recorder's Office** felt that they could provide a first cut estimation of the fiscal level of impacts (Table 46). **General Services** indicated that they would likely need another \$50,000 to support temporary overtime costs related to contract management activities associated with an incident. The **Recorder's Office** indicated that they would likely experience a 10% increase in personnel costs during the period immediately following the incident as a result of the transference of property from County residents migrating from the area.

3.2.2 Scenario 2: Additional Training, Planning, and Public Outreach Impacts

The **Public Communications** office noted that there would need to be additional public outreach activities if a Scenario 2 HLW shipment incident occurred. They estimated that the costs of such activities would be greater than \$600,000 (Table 46).

TABLE 46 - SUMMARY OF SCENARIO 2 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS			
Agency	Personnel*	Training and Plans*	Fiscal Impacts
General Services	\$50,000		\$50,000
Public Communications		\$614,937	\$614,937
Recorder	\$284,984		\$284,984
Social Services			
TOTALS*, **	\$334,984	\$614,937	\$949,921

* Personnel, training, information development/distribution, and plan development costs are adjusted using a 3% inflation factor through 2007.

** Equipment, Facilities/Capital costs are adjusted using 5% inflation factor through 2007.

Based on the available data, Clark County agencies identified almost another **\$1 million** in impacts above those costs associated with preparedness if a Scenario 2 type of event occurred during the shipment campaign.

3.3 Scenario 3 Additional Impacts

3.3.1 Scenario 3: Additional Personnel Impacts

If a Scenario 3 level event were to occur, virtually all of the Clark County agencies interviewed would experience adverse personnel impacts. For example, **Business License** indicated that they would probably need 15 additional auditors, 7 investigators, and support staff to handle the larger number of audits that would result as tourism downturns resulted in turnover in business ownership and the termination of business operations (Table 47). Associated personnel costs for these activities could reach almost \$1.7 million.

The **Department of General Services** estimated that they would need another 18 staff to handle all of the purchasing and contract activities that would result from this type of event costing upwards of \$1.3 million (Table 47).

The **District Attorney's Office** stated that a Scenario 3 event would significantly increase the level of litigation likely requiring three additional civil attorneys and one criminal

attorney, as well as, support staff (Table 47). The cost for these services would run approximately \$578,000 per year for two years.

The **Department of Administrative Services** noted that they would likely need four analysts within the Center for Strategic Management to deal with policy related issues and six additional public outreach personnel to work with the plethora of community issues that would arise from an event of this type (Table 47). The Administrative Services personnel costs associated with these activities could be \$575,.000 or more.

Similarly, other agencies including the Health District, the County Clerk, the Treasurer, the Recorder, the Department of Parks and Recreation, and Public Communications identified significant fiscal impacts on their personnel costs. In total, those agencies that were able to provide a first estimation of impacts forecast additional personnel costs of nearly **\$6 million** above those previously identified related to preparedness (Table 47).

3.3.2 Scenario 3: Additional Training, Planning, and Public Outreach Impacts

The Department of Administrative Services emphasized that if a Scenario 3 event were to occur, the magnitude and type of public outreach efforts that would be required would grow dramatically. Instead of emphasizing the use of Town Advisory Boards and Sandstone to communicate with Clark County residents, there would need to be communication that is far more extensive and an increase use of other types of media. While it is very difficult to estimate costs for an event of this type, the first cut estimation for only the Neighborhood Service needs were for an additional \$370,000 above those costs identified for preparedness. As noted above in Section 3.3.1, Public Communications also identified additional public outreach needs that they would address through the hiring of two additional staff.

3.3.3 Scenario 3: Clark County Expenditures and Revenues

The Department of Social Services estimated that their entire Medical Assistance budget would be exhausted in a few days if a Scenario 3 level event occurred. The Director noted that the demand for medical services to address both accident and stress related injuries would far exceed resources. This could result in expenditures in the period immediately following the accident of over \$61.5 million (Table 47). Further, she noted that her office is the only one authorized to write County checks without prior Board of Commissioner's authorization and thus, would likely be called on to make expenditures for other critical services. The County Clerk indicated that her office generates significant revenues from issuing marriage licenses and from deputy clerks solemnizing marriages. A great deal of this revenue is generated from tourists who come to Las Vegas to get married. If a Scenario 3 event were to occur, the number of tourists requesting marriage licenses will drop substantially. The County Clerk estimates that this could reduce revenues by almost \$7 million a year (Table 47).

TABLE 47 - SUMMARY OF SCENARIO 3 ADDITIONAL NEEDS, VULNERABILITIES, AND IMPACTS					
Agency	Personnel*	Equipment and Capital Costs**	Training and Plans*	Revenue	Range of Fiscal Impacts
Administrative Services	\$575,580		\$368,962		\$944,542
Aviation			\$276,722		\$276,722
Business License	\$1,678,778	\$422,130			\$2,100,908
County Clerk	\$383,721			\$6,946,328	\$7,330,049
District Attorney	\$578,041				\$578,041
General Services	\$1,295,057				\$1,295,057
Health District	\$503,633	\$307,468			\$811,101
Parks and Recreation	\$191,860	\$46,073,792			\$46,265,652
Public Communications	\$167,878				\$167,878
Recorder	\$284,984				\$284,984
Social Services				\$61,493,693	\$61,493,693
Treasurer	\$287,790				\$287,790
TOTALS*, **	\$5,947,322	\$46,803,390	\$645,684	\$68,440,021	\$121,836,417

* Personnel, training, information development/distribution, and plan development costs are adjusted using a 3% inflation factor through 2007.

** Equipment, Facilities/Capital costs are adjusted using 5% inflation factor through 2007.

Finally, while this section has discussed the primary fiscal impacts that were identified related to a Scenario 3 event, Section 2 details a much broader range of impacts that at this point, the agencies were not able to quantify but that nevertheless are to be expected if a serious HLW shipment accident were to occur.

4.0 CONCLUSIONS AND FUTURE NEEDS

During the course of this study, management level Clark County personnel generously and thoughtfully examined the potential impacts to their agencies and to the residents of the County that are likely to result if the DOE proceeds with the Yucca Mountain Project and its related HLW shipment campaign. While the first estimation of costs described by the senior managers in this report are significant, it must be recognized that there are substantial ambiguities that make it difficult to estimate the potential impacts. However, given the range and magnitude of impacts that were identified across 21 non-public safety agencies, it is clear that Clark County agencies and residents will be adversely impacted in a myriad of ways, including fiscally, if the DOE proceeds with the proposed HLW shipment campaign.

Further, as Clark County continues with its efforts to document the nature and extent of impacts, it will be important to investigate a number of the issues that were identified by these agencies in preparation of this report. A discussion of some of the key areas of study that were suggested follows.

Many key governmental personnel interviewed expressed concerns over the possible losses in governmental revenues and subsequently their ability to provide public services. The loss of revenues to governmental departments would result from decline in property values, sales taxes, and a variety of fees if economic downturns result from nuclear waste shipments through

the County. While there are uncertainties as to the magnitude of direct and indirect economic effects that could result from such transportation all studies point in the same direction that the impacts to the local economy can be anticipated to be substantial.

Based on studies currently underway, the County will soon be able to refine the magnitude of property value losses and business losses from planned nuclear waste shipments through Clark County. With this additional property value information and the baseline data that was gathered in preparation of this report, future studies can more precisely identify the affect of the HLW shipment campaign on both County revenues and its subsequent affect on government services.

At this point in the fiscal analysis, agencies were able to discern at least some of their additional needs and their associated costs. The need for additional governmental resources to provide for these needs may occur at the time when governmental revenue streams are in decline. If the DOE proceeds with the construction of Yucca Mountain and its related HLW shipment campaign, it will be important to project the nature and magnitude of revenue shortfalls for each unit of county government so effective mitigation plans can be developed.

A second theme to emerge from the interviews is the need to coordinate and disseminate information concerning nuclear waste issues including its potential socioeconomic consequences and health risks. Under accident conditions, we have learned that the County's various media, communications, and public information programs may be overwhelmed. The coordination and management of risk communication will require training for all media and information personnel in the County. Moreover, it will be critical to Clark County decision makers that they have knowledgeable staff support readily available to advise them in the areas of risk management and risk communication. Since County government is frequently the first line of information for the

public, it is important that a coordinated communications plan is in place to inform and educate residents about all aspects of the proposed DOE program, if the DOE goes forward with their plans.

A third issue that needs to be addressed and one that received attention by many of the agencies interviewed, is the need to supplement existing emergency management plans to include nuclear waste transportation accidents.

A fourth area of study that was identified by multiple agencies relates to the County's land use development policy along the Western and Northern Beltway. Currently there are major economic development plans for these areas. These routes have also been identified as possible routes for nuclear waste shipments that would result in increased risks to public facilities, schools, recreation areas, and hospitals. An earlier study indicates that such shipments will likely cause high value land uses to be altered and changed to lower order land uses (UER 2000). The use of the Beltways by nuclear waste trucks may also lower property values and lead to claims against the County for reverse condemnation. This type of activity has already begun. It suggests that the future planning of the Beltway corridor include the impacts on development from nuclear waste transportation. A study addressing land use policy and strategies along the Beltway corridors would also be useful.

Other studies that were suggest include several transportation studies that will be needed if the DOE proceeds with the HLW shipments. These are detailed in Sections 2.14 and 2.17. Finally, because of the likelihood that Clark County governmental entities and residents will be adversely impacted by the DOE's proposal, it is important that the County continue to develop a monitoring program to identify impacts that occur as a result of the DOE's actions.

In the previous phase of studies conducted by this contractor for the NWD, a framework for the monitoring system has been developed and baseline information was collected for Clark County public safety agencies. As part of the information collection activities for this report, baseline data has now been collected for most of the remaining Clark County agencies. This will facilitate the next phase of development of the monitoring system. This system will be beneficial for both Clark County senior management staff and the Board of Commissioners as they try to understand and manage the impacts that result from the DOE's proposed activities.

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